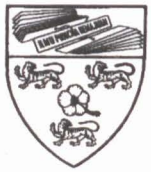

UNIVERSITI MALAYA

CONFERENCE MANAGEMENT SYSTEM

By:

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PROJEK ILMIAH
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WXES3182

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Abstract

Conference Management System(CMS) is a system that will help on organise and manage a conference for any organisation or company and also to work as a guide for the conference management committee members. This system may be very useful for any organisation who wants to start planning on a conference before, during and after the event.

CMS is a web-based system and need a user to key in any information that require and may choose some of the elements that will have link to some websites in order to get some ideas on some of the requirement needed.

CMS includes 6 important modules ; Pre-Conference, Accommodation, Transportation, On-site Logistics, Event Management and Post Program. This report is a documentation of presenting my system in order to help and further up user understanding on the system.

Hopefully this system will be the most useful system and maybe very good for the first timer of any organisation who intends to plan on helding a conference and also could replace some of the paper works.

Chapter 1 Introduction

1.1 Project Background

Board meetings, staff meetings, technical and scientific conferences, product launches, annual conferences, training seminars, fundraisers, galas, conventions, and incentive programs are just some of meetings and events that make up the meetings industry. This industry is a multibillion-dollar business and professionals on this are really growing in numbers. There are so many things to plan all the events and require a lot of important factors to keep in view.

Conference planning is complex and requires careful attention to detail. Individuals who are responsible for a few or a multitude of people at a conference have to plan and manage carefully. Therefore to held a good conference there must be preparation from the beginning towards the end. Often meeting of committees will help to complete and to make sure all the events planning will be running out smoothly.

Original from Latin word *Conferens*, conferent- present participle of conferre means to bring together. Conference is sometimes lasting for several days, in which people with a common interest participate in discussions or listen to speakers to obtain information. It's normally a meeting to discuss serious matters for example on policy, business and science. Sometimes conference is held as annual gathering of local representatives of an ogranization, such as political party, trade union or school, where policy matters and other issues are discussed or decided.

There are several categories on conference topics, for example Information Technology and Computing, Education, Business, Economy and Management, Politics, Medical and Health, and Society and Culture. No matter what types of conference, the planning and management of the workflow must be successful in order to produce good remarks from the participants, speakers and also for the committee members who really has done their jobs very well.

Some importances of conferencing are:

1- to share information among individuals with similar expertise and background such as education, medical, science and economics.
2- to allow exchanging ideas and presenting new findings of research and development.
3- to gather feedback among specific groups such as between teachers, civil service, corporate leaders and businessmen.
4- to facilitate networking in order to enhance better idea and information sharing.

Of course there must be some challenges in organizing a conference, such as :

1- so many elements to be covered during planning a conference such as preparing handout materials, catering food, contacting speakers and registration.
2- must take care a large numbers of participants, should be limitation on controlling the amount of participants.
3- Organization must control the finances and expenses so that they will not over spent and must have a budget control system for all the elements that include fees for the speakers, rappoteurs and emcee.
4- must find a good sponsorship and capital.
5- check out on speakers schedule and make a contact in advance.
6- know what are the support system and facilities that will be using during the conference such as OHP, projector, notebook and audio system.

Conference Management System(CMS) is a system to help organizer to plan and manage step-by-step method and programs to produce a systematic system in order to reach nowadays Information and Communication Technology(ICT) requirements. There are 3 phases to planning and managing an event :

i- Plans are formulated and implemented

ii- The actual conference/event

iii- The post conference/event period.

ICT refers to a whole range of technologies involved in information processing And electronic processing and electronic communications. Areas of ICT that presuppose the use of computer concerned on access, retrieve, store, organise, manipulate, present and communicate information electronically. With that, ICT can help on organizing a conference management system systematically and eliminates error made by human.

There are many types of conference; normal conference which is in real-time, teleconferencing, video conferencing and interactive videoconferencing. Normal conference is like speakers in a hall or small room will conduct all the participants. Teleconference is an online meeting between two or more people where this system allow users to communicate in real time, just as the would by the phone. In a typical real time conference each participant sits at a computer watching the messages appear on the screen as they're typed by other participants and typing comments for others to see immediately.

Videoconferencing systems are often used for distance learning in which the participants are not geographically near each other or for some other reason, are physically unable meet. Where as Interactive Videoconferencing is an effective tool that allows real time visual contact between participants and speakers at different sites.

Therefore in order to hold a good conference, the management and planning by the committee members are the basic things to organise and handle properly.

1.2 Project Overview

Conference Management Systems(CMS) is an application software to use by any organisation to help the committee to manage a conference. CMS is consider a software which can incorporates various stages and functions involved in the organisations of conference. All the different functions are linked together to enhance conference management capabilities to ensure smoothness of each event. From the pre conference management until the post program of the conference included in the system. Under the development phase includes :

i- Consider the conference format, venue and dates.
ii- Preparation of preliminary operating budget.
iii- Selection of speakers and rapporteurs
iv- Arrange committee meetings
v- Establish promotion plan-including research and procurement of mail lists, press packets and advertising
vi- Design and produce promotional materials
vii- Establish registration procedures
viii- Process registration ; record and confirmation
ix- Prepare name badges and speakers cards
x- Negotiating airline travel and car rental discounts for attendees
xi- Design meeting and function room set up
xii- Determine audio-visual needs
xiii- Coordinate food and beverage functions including menu selection or creation special menu
xiv- Conduct briefing of meeting facility staff
xv- Establish master billing and credit requirements
xvi- Review and approve bills for payment

In On-Site Management & Liasion phase will involve:

i- Provide liaison with meeting facility
ii- Supervise on-site registration staff
iii- Distribute meeting materials and handouts

iv- Expedite check in and check out procedures

v- Check set up of meeting and function rooms

vi- Position signs and room locators

vii- Arrange VIP greeting and amenities

viii- Confirm food and social function guarantees

ix- Distribute gratuities

Follow-up phase will be :

i- Review hostel master account charges

ii- Send acknowledgements to volunteers and staff

iii- Review and approve bills for payment

iv- Provide closing Financial Reports

v- Provide conference summary

Development, On-Site Management & Liaison and Follow-up phase were the most regular services available to conduct a conference. Each service receives individual attention by the staff and committee members who will be organising a conference.

Although I couldn't include all the services I listed in all the 3 phases, I had produced a system that is slightly the same but I would break it into 5 modules.

1- First Module : Pre Conference Management

This module involves :

i-organising committee members

ii-registration for participants

iii-theme and objectives of the conference

iv-method on how to promote the conference

v-sponsorship

vi-financial reporting; budget development

vii-details of the conference(venue & date), choose speakers & rappoteurs.

2-Second Module : Accommodation

Under this module is management of accommodation for the participants and speakers.

i-cover the best location during the conference

ii-identify the optimum type of accommodation

iii-registration and booking

iv-available facilities

3-Third Module : Transportation

Preparation of the transportation for the participants and speakers.

i-link to the airport sites and online ticketing

ii-couch service

iii-car rental service

iv-available transportation during outside conference activities.

4-Forth Module : On-Site Logistics

This will cover :

i-Conference Room and workshop layout

ii-catering food and beverage

iii-facility interface and coordination

iv-printing handout materials

v-prepare for conference bag or folder and souvenirs for the speakers and participants.

5-Fifth Module : Event Management

This one will plan on :

i-stage design and construction or backdrop

ii-sound system design and rental

iii-preparing for opening and closing ceremony

iv-equipment specs and recommendations and any facilities that will be used during the conference.

6-Sixth Module : Post Program

Finally this module includes on:

i-budget report

ii-post mortem on the conference by the committee organise

iii-evaluation form for the participants

iv-compile resolution

v-close accounts.

1.2.1 Where CMS can be used?

i- International conferences such as world and regional bodies like ASEAN and United Nations

ii- Within the country, between governmental organisations, NGOs, trade union bodies and schools.

iii- Internal or small scale : within an organisation or company

1.2.2 Limitations of CMS

Of course there would be some limitations in this system since I suppose that I didn't have enough time to complete all these parts;

i- In Post Program Module, the reports for post event and budget would be not as much detail since I didn't intend to put a full version of this report but I would try to give some ideas on how to do this report and maybe some examples on how will this report look like. This will be same as Close Accounts Report.

ii- I will have limited time to complete this system perfectly and I didn't think that CMS can be tested during a real conference.

1.3 Objectives of Project

Primary reason of conferences is held are to inform, teach, exchange ideas, discuss problems, make decisions and communicate issues. It is very important to

recognize the purpose of having a conference and then set the agenda to accomplish the most important goals.

To obtain a record system which can prepare a system that can manage and plan on a conference and to help the committee members of any organisation to organise their conference systematically.

Another objective of my project is to make sure less of paper works to be handle and to decrease the men powers.

This project may let any organisation that will be organising a conference to give a try by using this system to ensure that they may conduct and plan a conference with guidance of this CMS software.

1.4 Scope of Project

My project will cover all aspects such as business, economy, conferences industry and technology. I have to combine all this aspects since this project requires me to get to know all that related to build a Conference Management System. Technology and knowledge are the key factors of production, which is my system. Economic growth is driven by accumulation of knowledge. To held a conference is not easy since it involves a lot of people and the organiser should be able to make a deal and communicate very well with this entire people.

By using my system, the committee members must understand the conferences industry first. Things like setting goals and objectives, determining value of the conference, and knowing who's who in the industry are all important in the planning process. My system will include on creating timeline and budget, writing and distributing a Request for Proposal(RFP) and negotiating with vendors are all important to do in the very beginning.

This system will try to guide from hotel contracting stage, transportations and facilities needed on how to manage and plan during the preparation stage. Part of the planning process also will involve how to set the conference rooms, where to buy all the things needed to produce a conference, how to find and hire speakers, traveling arrangements, registration and housing, also how to determine audio visual equipment needs. All these really need a good attention and my system will try to help from becoming overwhelmed with all the responsibilities.

1.5 Importance of Project

Conference Management System(CMS) will guide the user on how to manage and organise before helding a conference and may let the user key in all the information in the system. This system can keep track on planning a good conference and can effort to build a manageable system to make things easier for the company and administrator.

CMS will also help the organiser to be systematic and prepared on how to manage a conference, as they have to consider so many aspects. So, this system will help on keeping track of what had been done and things that need to be sort out.

Of course this system will ensure the smoothness run of the conference since the organiser had perfectly done step by step what to do before, during and after the conference. Again this system may be a very useful guide on managing and organising a conference at a certain level. With all the module that I had proposed, I really hope that CMS will be a very in demand system and may help any organisation who wants to held a conference to be well prepared from the first beginning till the end of having a conference.

1.6 Definitions

Word/Phrase	Meaning
1- Conference	Meeting of individuals with the same interest, background and expertise to share information and knowledge. Its also can be in many forms and functions such as symposium, seminar, convention, summit and meeting.
2- Conference Management System	Software that incorporates various stages and functions involved in the organisations of conference. The different functions are linked together to enhance conference management capabilities to ensure smoothness of each event.
3- Pre Conference Management	Organising and coordination of tasks prior to the commencing of the conference itself. The management at this stage requires completion of tasks such as registration, booking of conference, finding speakers and participants and ensuring that necessary items such as accommodation and conference material will be prepared before hand.
4- Accommodation	Preparation of lodgings for participants or speakers of the conference.
5- Transportation	Preparation of transports for conference participants, to and fro from lodgings, points of entry and when leaving at the end of the event.
6- On Site Logistics	Overall planning of location for conference materials to be stored and also the transportation of anything related to the conference within the vicinity of the conference.

	Usually is concerned about ensuring that any material(equipment,stationery,furniture) that is required for the conference to proceed smoothly must be available on hand somewhere and can be transferred within a short period of time.
7- Financial Reporting	Updating and dissemination of information regarding financial matters and budget. Should give information on revenues from the registration fee and sponsorship, and also the expenses incurred in the organisation of the event.
8- Budget Development	The process of coming up with a list of expenses to be incurred and the expected amount to be spend on each item. It is an important aspect of managing the finances of a conference so that the overall expenses will not suddenly increase and result in huge loss for the organisers.
9- Layout setting	Arrangement of tables, conference section, exhibition area, refreshment corner and how participants will seat during the event. Should be done in the manner to give comfort to the participants and ensure that blocked areas do not disrupt the event, improper orientation of furniture and so on.
10- Catering Food and Beverage	Supply of food and drinks for the participants must be prepared and usually a caterer can be hired for this job. The menu and timing of when meals or refreshments are to be prepared

	must be conveyed ahead in time to the caterer to give them time to plan its manpower and preparation.
11- Facility interface & coordination	Usually a conference or event will be held at a facility that is not owned by the organisers, such as a hotel hall or convention hall. So there needs to be a person or committee whom the conference organisers need to talk to so as to arrange the necessary resources for the conference. Normally there is an interface or person assigned by the facility owners for that particular conference and he or she will coordinate the required matters.
12-Event Management	Coordination of the main events and sub events during the overall conference. The organisers must come up with the topics to be discussed and who will be the main speakers, when the participants need to have their meals and then retire at the end of the day. Within a main event, there will be many things going on and all these sub-actions should be coordinated accordingly.
13- Post Program	The management of a conference must also include the tasks occurring at the end of the conference. Getting feedback from the participants, closing out any pending issues with the suppliers and facility managers and so on. It is important to close out any imminent issues to avoid complications later.
14- Post event reporting	The organisers of a conference should come up with a report to indicate how the overall

	function went about, the feedback from the participants and the problem encountered. It is good so that a sort of lessons learnt record can be done and steps to improve future conferences can be taken.
15- Compile Resolution	At the end of the conference, the secretariat should note down the key points that have been discussed and agreed upon by the conference. A report or memo should be produced and then distributed to the participants. At the same time, if the conference is giving suggestions to government bodies or authority agencies, the matter should also be followed up with them as well.
16- Close Accounts	The accounts can only be closed once all the receipts and payments for having the conference have been done. It is done so that the organisers would know how much has been spent or if they made any profit or loss from that particular conference.
17- Budget Report	A compilation of figures, comparing the budgeted with the actual numbers. This is useful for that organisers can find out why is there any discrepancies from the budgeted and then this information can be used to prepare them for the next conference or event, they're having.

18- Evaluation Form	A form filled out by the participants, usually anonymously, on which they can give opinions or grading of how the event was organised, in terms of various matters. For instance, the level of presentation by the speakers, punctuality of events starting and what they think of the conference, whether it was beneficial or waste of their time.

Table 1.1 List of specific terms in Conference Management System and meanings

1.7 Chapter Summary

In this chapter, few important things have been mentioned before starting of the project. Firstly, the whole picture of the system that is going to build is described briefly, then the reasons why this system has to implement, the project scope or limitations and also the importance of the project. Lastly, some phrases or terms that will exist in the system have been described to make a clear vision on what is Conference Management System actual purpose.

Chapter 2 Review of Literature

2.1 Role of Literature Review

There are some important reasons of having literature review, there are :

i- to collect information on system that need to be developed

ii- to review and make an assessment on existing systems with same or different concepts which are relevant and have been developed to ensure any strengths and weaknesses in the systems and could also point out any mistakes on the specific system.

iii- To get a better understanding on each concept in the system development process and to compare some softwares and methodologies that had been used for other system and may help on making a decision what software and methodology will suite the system that I'm going to produce.

2.2 Approach to Literature Review

Of course it would never be a complete job without doing some research on collecting any related information with the system that I developed. Therefore, finding all the information were very important on deciding what are the objectives and importance of having this project. Information can be retrieve from any resource and every resource would give different information and require different method of findings. There were some techniques that available on having a research and analysis on existing system and system that will be developed. Examples of searching for the information are collecting the data method and written method.

2.2.1 Information Collection Techniques

The process of information gathering technique is carried out in order to have a better understanding of the proposed system and also user's requirements. Among few of the suitable methods used for this process were :

1- Discussion and Informal Interview

Discussions are made with the supervisor, especially when problem arises and certain clarifications are needed. Besides, the discussion also is carried out between friends for some related matters. Many good suggestions and advices are obtained through the discussions to overcome the problems and improve the system design. This type of method is chosen on getting the information on the operational system existed. Respondents are among the people who's involve in attending or organizing the conference. Informal interviews had been made from time to time by getting the information and views from friends and corporate leader. This may help me on having a better understanding on any problems regarding the system like what have been asking in the system requirement phase.

2- Documentation/Books or Newspaper

Reseach and analysis have been made to ensure smoothness in completing this report. This includes the relationship with the system that will be design later on. Collection of information from books, newspapers and magazines had been done in order to get relevant information that will be useful. All the documentation had been retrieved from the bookstores, private collection and UM's library.

3- Internet Surfing

Internet has been a very helpful and up to date on getting a quick information in order to develop this system. From the Internet I found so many sites that really give me ideas on how am I suppose to develop and organize this system. Also, I got to retrieve some websites, which showed me some existing system that similar with my system but presented in a different way.

2.2.2 Writing Method

1- Analysis on writing resource

Analysis on all the information that had been retrieved with simplifies all the data and information in a simpler form and may follow the project development requirements.

2- Comparative

Conclusion and decision had been done in order to make sure that there would be difference in the existing system and proposed system base on the information that had been collected.

2.3 Findings

Here are some of the literature reviews that I have seen and gone through and I think that these sites really help me and give me a broad idea on how the conference industry actually is. I just put the important sites even though I have seen so many sites that really useful for this project.

Table Reviews of Literature

Search Engines	Keyword used	Websites	Date	Descriptions
www.yahoo.com	event planning	http://www.bonsoiree.com/management/ (Special Event Planning)	20.3.02	Soirée is a full-service event planning and management company.
		http://www.eventplanning.com/mpls-st.paul.html (Minneapolis & St. Paul Special Event Planning)	20.3.02	This site contains resources that can assist in planning meetings, weddings, and special events.
	conference management	http://www.justtravel.com.au/ (Just Travel)	25.3.02	Caters for domestic and international leisure and corporate travel, conference management, and group tours
		http://www.inside-edge.co.za/ (The Inside Edge)	25.3.02	The inside edge is the only full service practitioner, in Southern Africa, that combines the disciplines of Destination Management and Professional Conference Organization, and that has branches in Durban, Cape Town, and Johannesburg
		http://www.global-dubai.com/welcome.html (Global Management Consultants)	25.3.02	Offers outsourcing, conference management, and executive training
		http://www.conferencemanagement.com (Conference Management)	25.3.02	Management of tradeshows, conferences and seminars, including full registration service, contract negotiation, on-site services and support.

www.googles.com	conference management system	http://www.tms.org (The Minerals, Metals & Materials Society)	20.3.02	Web-based tool for accessing information pertaining to conferences hosted by TMS. It is also used to accept input for future conferences, which are being organized on an ongoing basis.
		http://www.hosa.org (HOSA Conference Management System)	20.3.02	The HOSA Conference Management System is a Windows application capable of managing registration, billing, competitive events, tabulation, and various other components of a HOSA state/national conference.
		http://www.ics.uci.edu/~dsr/old-courses/ics125f98/confmgr.html (Web based Conference Management System)	20.3.02	Build a system for managing the submission, review and selection of technical papers for a research conference.
	event management	http://www.globaleventmanagement.com/index2.html (Global Event Management)	21.3.02	Specializing in the development and implementation of fully integrated event management programs.
		http://www.totalevents.co.uk/webf/index.html (Total Event Management)	21.3.02	TEM offers a comprehensive range of services for weddings, parties, corporate events, party planning and event management as well as a complimentary menu tasting service.
	event planning	http://www.event411.com/ (Meeting Management & Meeting Planning)	27.3.02	Enable professional planners to improve productivity and the experience of their meetings, conferences, and events
		http://eventplanner.com/ (Event Planner)	27.3.02	Serves online meeting, event and travel planning resource. EventPlanner.com has been serving the professional planning industry

		http://www.geocities.com/armedwithjello/scouts/tips.htm (Event Planning for Dummies)	27.3.02	Some ideas on how to plan an event.
www.msn.com	conference management system	http://www.exhibitsystems.com.au/ (Exhibit System)	24.3.02	Consultancy provides project management services for the conference and exhibition industry in Australia. Designs, installs, and rents displays and trade show exhibits.
		http://www.bluedot.com/index.esp (BlueDot)	24.3.02	Bluedot's platform provides the software infrastructure to effectively leverage and scale the enterprise portfolio of web-based and traditional business events, transforming them into key drivers of revenue growth, enhanced customer experience and cost savings.
www.dogpile.com	conference management system	http://www.meetingdesk.com/ (Meeting Desk)	30.3.02	Delivering the latest in online registration, administration, and organizer-delegate interfaces.
		http://www.amotive.com/registration/index.cfm (Conference & Event Management Registration Service)	30.3.02	Conference Management System ™ (CMS) handles conference event registrations and housing requests in a fully online, real-time, secure environment.
	event management	http://www.eventlogistics.com/ (Event Logistics)	30.3.02	Event Logistics seeks to provide high quality, reliable, individualized meeting, event planning and specialty marketing services worldwide that enhance the communications programs and reputations of clients.
		http://www.regonline.com/?sc=3002/ (Online Event Registration)	30.3.02	RegOnline is the powerful, affordable online event registration service that is perfect for meetings, seminars, training classes, sporting events, conferences, trade shows, and any corporate event

		http://www.dovico.com/ (Dovico Software)	30.3.02	Timesheet and project tracking software for meeting project objectives on time and on budget
www.catcha.com.my	event management	http://www.strategicevents.com/about.htm (Strategic Events)	24.3.02	Strategic Events delivers the full range of communication and production services in the following key areas: events and meetings, exhibits, film & video, survey & measurement, and digital media.
		http://www.ebr-ltd.com/	24.3.02	EBR offers a wide variety of first class business services providing companies with dynamic industry professionals who have a vast amount of knowledge at their disposal.

2.4 Existing Systems

1-HOSA Conference Management System

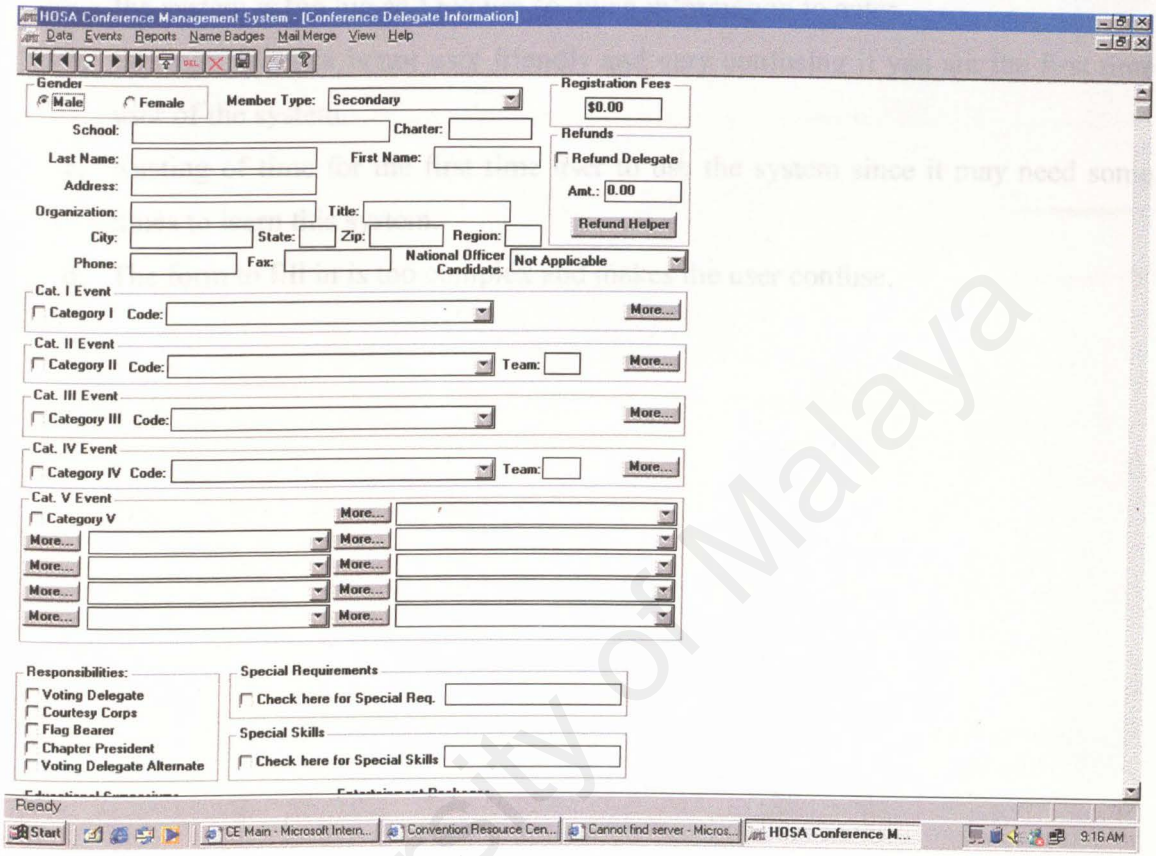


Figure 2.4 HOSA Conference Management System

Advantages :

a. a very helpful system because of the detail parts such as in Reports Module;it breaks into Delegates Listing, Registration Summary and Event Summary.
b. It prepares Mail Merge Module for Certificates, Delegates Mail Merge, Educational Symposium, Exhibitors and Judges.
c. This system also allows importing and exporting Delegate Data.

Disadvantages :

a. the system is too big and require so much information to enter
b. the user interface is not user friendly and very confusing if you are the first time user of the system.
c. wasting of time for the first time user to use the system since it may need some times to learn this system.
d. The form to fill in is too complex and makes the user confuse.

2- Convention Resource Center

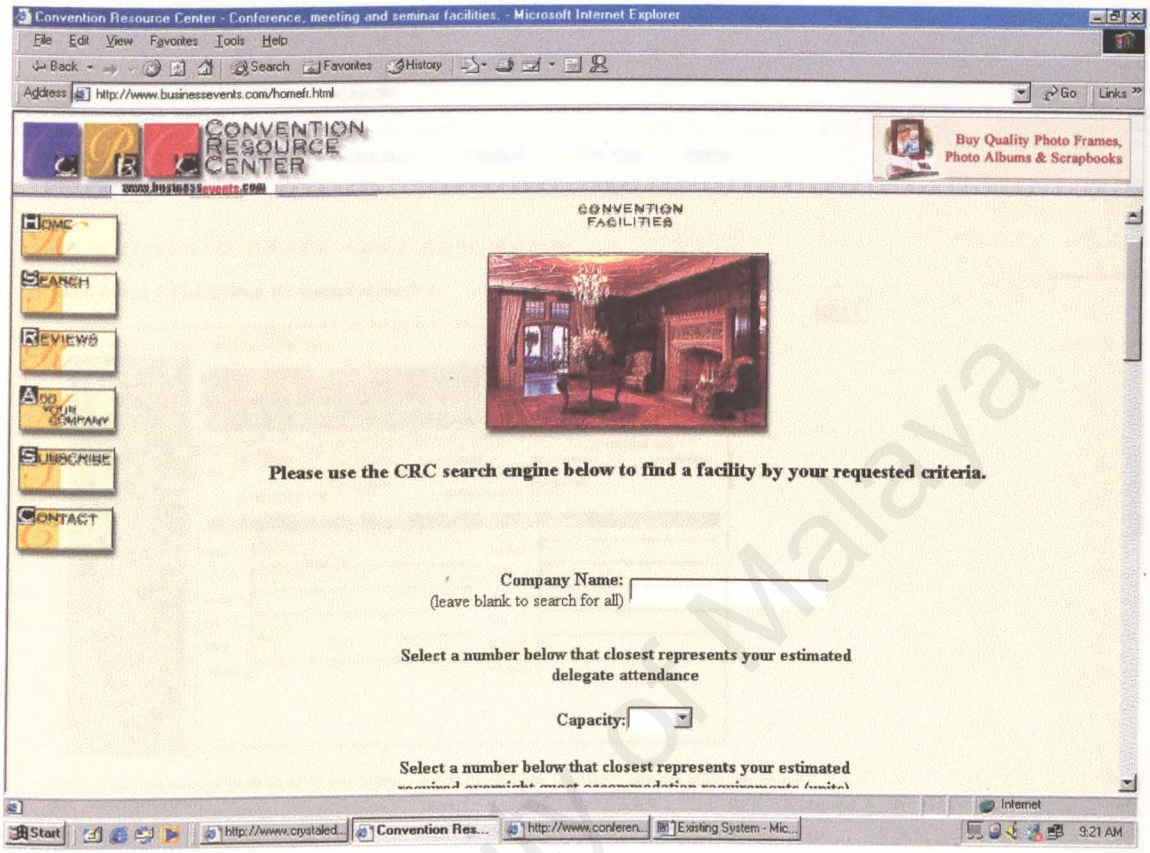


Figure 2.5 Convention Resource Center

Advantages :

a. user friendly since it uses web based system and interactive.
b. can find facilities that are available by user requested criteria.
c. provide a search engine to find any places or facilities.

Disadvantages :

a. don't really help to manage or plan a conference since this system only provide limited services for the users.
b. the system has to make a research first and not really straightforward.

3- International Conference Management

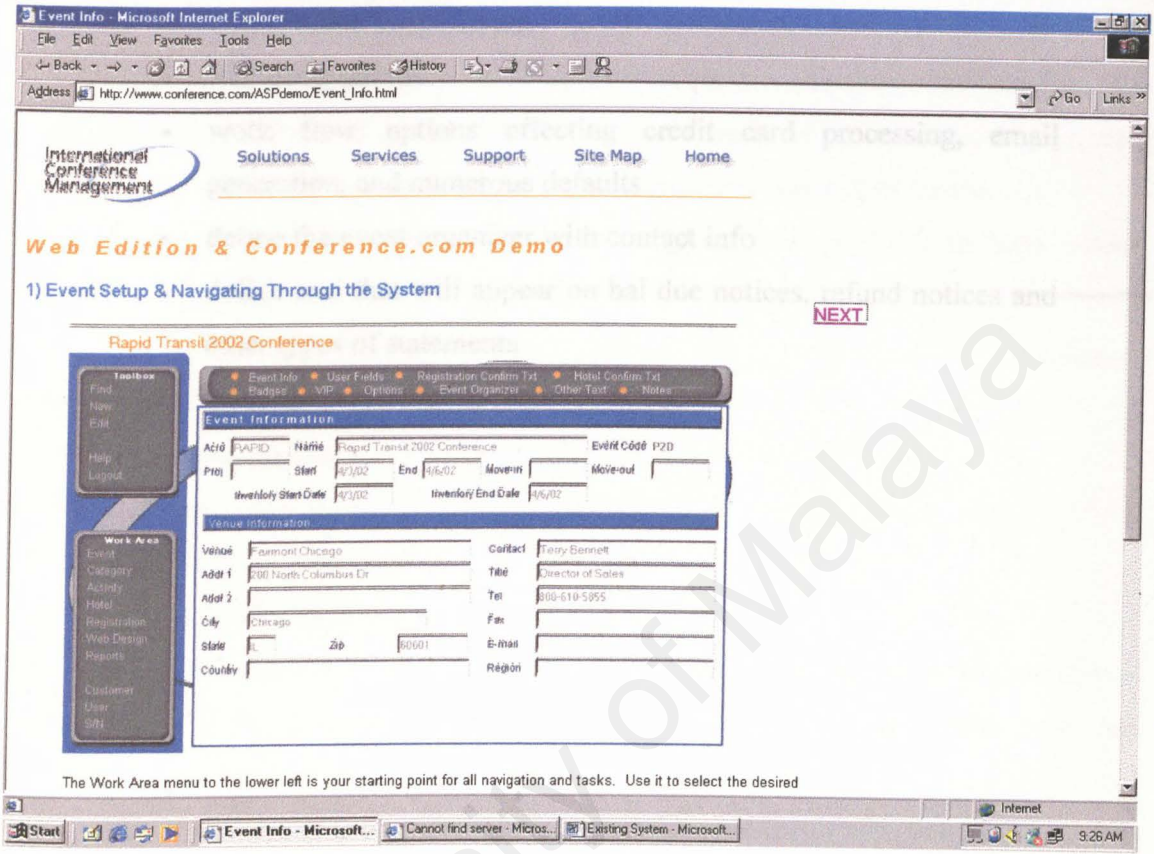


Figure 2.6 International Conference Management

This site only provides the system for the back end user and not for public use. But from my point of view, this system is user friendly and gives a better understanding on a step-by-step system to key in all the information. This system provides Event Information, Venue Information, Registration Confirm Text, Hotel Confirm Text, Event Organizer and others. The Toolbox menu contains file maintenance options that enable to Find records, add New records, Edit, Save, Delete, access online Help or Logout. The Event Work Area is designed to :

- define your event
- turn-on user definable fields to track unusual information

- define text that will appear on registration and hotel reservation confirmations
- define name badge layout
- VIP designations
- work flow options effecting credit card processing, email generation, and numerous defaults
- define the event organizer with contact info
- define text that will appear on bal due notices, refund notices and other types of statements
- maintain project notes

2.4 Relationship to Proposed Project

Basically after I had made some reviews on the 3 existing systems that I've been discussed, I came out with an idea to produce a system which is more simpler, very useful for any organizations and will have more things and services to provide.

I tried to combine all the related elements that had been produced in those systems and I try to come out with 6 modules, which are:

i-Pre Conference Management

ii-Accommodation

iii-Transportation

iv-On site Logistics

v-Event Management

vi-Post Program

that is related to each other and may help the user to use the system at the beginning part before preparing the conference, during the conference and after the entire event had finished.

This is my process flow for Conference Management System, which I intend to implement next semester.

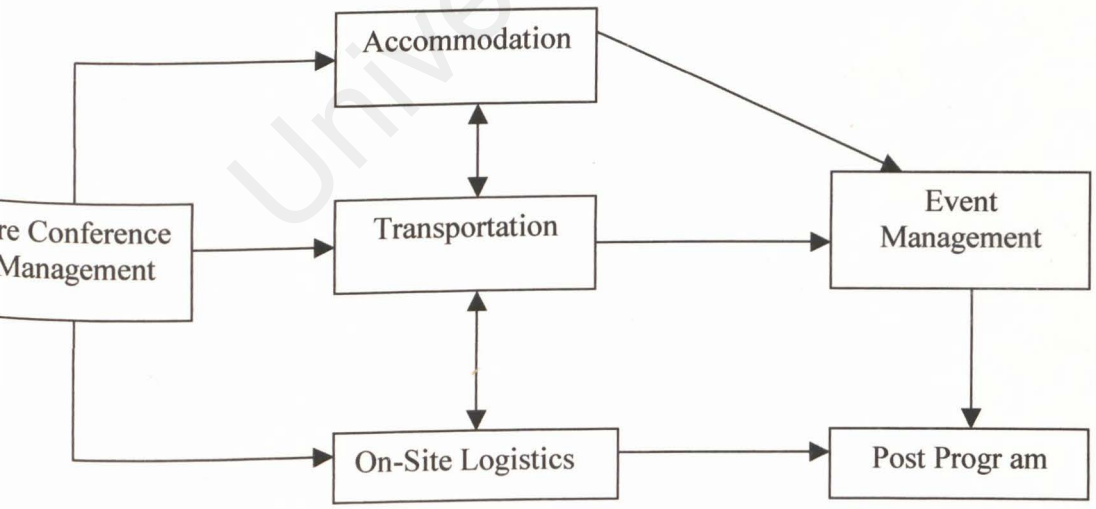


Figure 2.7 Conference Management System Process Flow

2.4 Summary of Literature Review

In this chapter, a lot of terminologies have been touched. The history and development on the Internet and database have been discussed. There are also a few of computer technologies such as Internet programming languages, browsers, database applications and others to be introduced here. Basically, finding on related system, Conference Management System(CMS) was more in the Internet and I had identify some relevant websites that may help me on developing my system. Lastly the research on similar existing systems from the web is done and compared. Literature Review really helped me on how to get a better view on my proposed system,CMS and also to get a better understanding on conference industry. In the next chapter, the approach of how to develop the system is discussed.

Chapter 3 Methodology

3.1 Project Objectives

This project is produced definitely to give me a chance on how to develop a system. I had chosen CMS as my system and with this experience on how to start a system is still very new to me. In fact, this is my first time for me to create a new system and that's why I need a step-by-step instruction that can help me to present a good system later on.

By developing this project I faced some problems during the system testing and of course I had tried to settle the problems during the system maintenance. This really teached me on how to be very patient on conducting a system by myself and also with helped from supervisor, moderator and friends.

After I had done with literature review, a summarization has been made and the best way to develop the system is decided. There are some methodologies such as System Development Life Cycle(SDLC), V Model, Prototyping Model and Transformational Model.

I had made a decision on using Waterfall Model with Prototyping as my methodology. I will explain the approach of how to build up the system and also the system requirement will be described.

3.2 Development Methodology

There are several reasons for modeling a process:

i- After writing down a description of the development process, it forms a common understanding of the activities, resources, and constraints involved in software development.

ii- Creating a process model helps the developer find inconsistencies, redundancies and omissions in the process an in its constituent parts. As these problems are noted and corrected, the process becomes more effective and focused on building the final product.

iii- The model should reflect the goals of development, such as building high quality software, finding faults early in development, and meeting required budget and schedule constraints. As the model is built, the developer evaluates candidate's activities for their appropriateness in addressing these goals. For example, the developer may include requirements review, so that problems with the requirements can be found and fixed before designs begin.

iv- Every process should be tailored for the special situation in which it will be used. Building a process model helps the developer understand where that tailoring is to occur.

3.3 Rationale for Proposed Methodology

After comparing a few system-developing model, the Waterfall Model with Prototyping is chosen. There are some reasons of choosing this model :

i- This model is easy to understand because of its step-by-step development declaration. It makes the developer know what is the next step of the development, and planning for their next step.

ii- It presents a very high level view of what goes on during development, and is suggests to developers the sequence of events that are going to encounter.

iii- Prototyping allows the user to test part of the system and therefore they can know whether the system has fulfilled there needs or not. Also, prototyping lets developers understand the system requirement more clearly.

iv- Validation and verification are 2 important steps that let the developers to confirm that their system has fulfilled users' requirement and each part of the system is running smoothly.

This model will be very useful in helping developers lay out what they need to do. Its simplicity makes it easy to explain to those people who are not familiar with software development; it makes explicit which intermediate products are necessary in order to begin the next stage of development. Many other, more complex models are really just embellishments of the waterfall, incorporating feedback loops and extra activities.

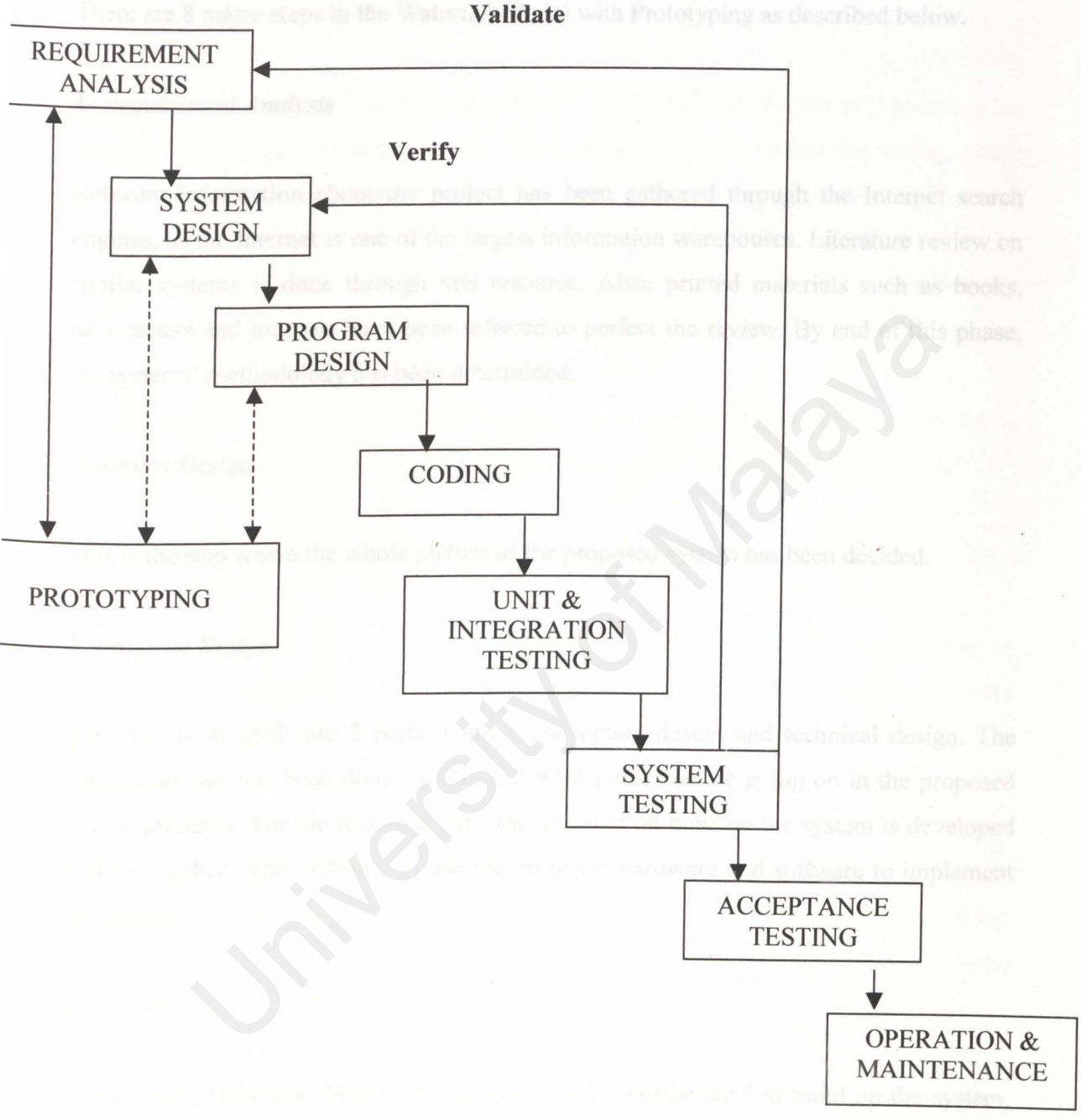


Figure : Waterfall Model with Prototyping

There are 8 major steps in the Waterfall Model with Prototyping as described below.

1- *Requirement Analysis*

Relevant information about my project has been gathered through the Internet search engines, as the Internet is one of the largest information warehouses. Literature review on similar systems is done through this resource. Also, printed materials such as books, newspapers and journals have been referred to perfect the review. By end of this phase, the systems' methodology has been determined.

2- *System Design*

This is the step where the whole picture of the proposed system has been decided.

3- *Program Design*

This step is divided into 2 parts, namely conceptual design and technical design. The conceptual part has been done, which told what processes are going on in the proposed system textually. For the technical part, the question on how are the system is developed will be touched. The system will use the proposed hardware and software to implement the system.

4- *Coding*

In this stage, Hypertext Markup Language(HTML) will be used to build up the system. Besides the software that will be using to develop this system is Macromedia Dreamweaver Ultradev 4 where Microsoft Access 2000 Premium will be used as the database system to store the input and information.

5- *Unit and Integration Testing*

After doing the separate unit, tests on the functionality of each module will be run. Also after the unit testing, integration of the modules have to be done and the testing on the functionality of the integrated system will be run. All the testing is to make sure that the modules can be combined together.

6- *System Testing*

In this stage, system testing will be running to make sure that the whole system is working properly. Also system testing is to ensure that the system fulfill users needs.

7- *Acceptance Testing*

This is the stage before the system is really implemented into the real life. Users will be invited to test the system to see whether the system contains no bugs or misunderstand parts.

8- *Operation and Maintenance*

This is the final stage where the system is implemented after the final testing. Maintenance will be done to make sure that system runs smoothly and correct any run time errors when things happen.

The software development process can help to control the thrashing by including activities and sub processes that enhance understanding. Prototyping is such a sub process; a prototype is a partially developed product that enables users and developers to examine some aspect of the proposed system and decide it is suitable or appropriate for the finished product. Design prototyping helps developers assess alternative design strategies and decide which is best for a particular project.

Often the user interface is built and tested as a prototype, so the users understand what the new system will be like, and the designers get a better sense of how the users like to interact with the system. Thus, major kinks in the requirements are addressed and fixed well before the requirements are officially validated during system testing; validation ensures that the system has implemented all of the requirements, so that each system function can be traced back to a particular requirement in the specification.

System testing also verifies the requirements; verification ensures that each function works correctly. That is, validation makes sure that the developer is building the right product(according to the specification), and verification checks the quality of the implementation. Prototyping is useful for verification and validation, but these activities can occur during other parts of the development process.

3.4 System Requirements

3.4.1 Development Requirement

A more proper computer is needed to build up the proposed system so that the process can run smoothly. Also the development tools should be able to be tested to correct any mistakes. Below is the list of the hardware and software that are going to be used:

i- Hardware :
   a. Pentium II 400Mhz or above
   b. 128 MB of RAM
   c. 10 GB hard disk with at least 1 GB of free space
   d. Other computer-compatible accessories

ii- Software :
   a. Windows 2000/ Millennium Edition
   b. Macromedia Dreamweaver Ultradev 4.0
   c. Adobe Photoshop 6.0
   d. Microsoft Office 2000 Suite; Microsoft Access, Microsoft Words and Microsoft Excel

Macromedia Dreamweaver Ultradev 4.0

I had chose Macromedia Dreamweaver Ultradev 4.0 is because :

i- This software provides a set of easy to use application building tools that shield from the complexity of writing server side programs.

ii- It also can create a page design and add dynamic functionality to the page as well as provides for executing these development phases.

iii- It teaches me on how to plan design for web pages to meet any kind of audiences.

iv- This software may connect to a database to display data dynamically and define data sources for web pages.

v- Can create interesting, full-featured, interactive web pages with the Dreamweaver features of Ultradev.

Adobe Photoshop 6.0

I'm using Adobe Photoshop 6.0 too because I'm already familiar with the software since I had learnt this in Multimedia System subjects. It's quite easy to use for editing and drawing.

Microsoft Access 2000

The back end database system is chosen where Microsoft Access 2000 is the choice. It is because of the ease of use and builds up a small-scaled system.

3.4.2 Server-side Requirement

A more robust server system should be used so that the whole system can run smoothly when implements. The processor should be powerful enough to handle users' needs.

i- Hardware :
   a. Pentium III 450Mhz or above
   b. 256MB RAM
   c. 10 GB hard disk with at least 650MB of free space.
   d. Other computer-compatible accessories with network connection.

ii- Software:
   a. Windows 2000
   b. Microsoft Access 2000

3.4.3 Client-side Requirement

For the client side, any computer should be able to access to the server to get the details. This promotes the usability of the system.

i- Hardware :

a. Any compatible computer with network connection

ii- Software:

a. Microsoft Windows 98

b. Microsoft Internet Explorer 5.0 or above

3.5 Requirement Analysis

A requirement is feature of the system or a description of something that the system is capable of doing in order to fulfill the system's purpose. Requirement analysis covers 2 main categories, which are functional and non-functional requirements.

3.5.1 Functional Requirement

Functional Requirement is a set of functions that are required by the users to be included into the system. Also, it describes the interaction between the system and its environment. Below are the functional requirements that have to be included after reviewing on the existing systems.

i- *Login and Welcome*

This is the first part of the system that will need the user password and login to get through of the system. This is just for system safety and not to allow outsiders from using the system.

ii- *Pre-Conference Management Module*

In this module, it requires organizing of required elements before the starting of a particular conference. This module will allow the user to key in the committee members just to keep track that is responsible for each task. This module may has a registration for the participants, their details including the details for the speakers, guests of honour and persons in charge in any particular job during the conference. This module will include basic background on the conference itself such as the venue of the conference, date and time, how many days required, group of target of participants, objectives and also the themes for the conference. Method on how to advertise the conference, sponsorship and budgeting.

iii-*Accommodation Module*

This is where the preparation of lodgings and should be covering the best location to held the conference, identifying the optimum type of place, registration for hotel or rooms and place with the most available activities will be the first choice.

iv- *Transportation Module*

This will be the preparation of transport and in this module will include sites on airport, online ticketing, car rental service and couch service. And of course any available transport during outside conference activities.

v- *On-Site Logistics Module*

This may point out layout settings during the conference, contacting catering food and beverages, facility interface and coordination, preparing program hand out materials, souvenirs, conference bag/folder and nametags.

vi- *Event Management Module*

This is where to ensure smooth running of events and minimizing time wasting. This will cover preparation of the opening and closing ceremony, stage designing and backdrop, rental sound system design, equipment specs and recommendation for any facilities and also facilities that may be useful during the conference.

vii- *Post Program Module*

The elements that need to be covered during this module will be post event reporting, post mortem by the committee on the conference, budget report that will compile all the expenses, compilation of the resolution, closing accounts, which is final checking for the accounts and example of evaluation form that will be distributed for the participants and speakers.

3.5.2 Non-functional Requirement

Non functional requirements are essential definition of the system properties and constrains under which a system must operate. Below are the non-functional requirements for the proposed system :

i- *User-friendliness*

The system interface design should be user-friendly and easy to understand. Generally the interface design should confirm to the following ;

- Consistent, in term of the screen design and error messages displayed
- Appropriate error handling with associated error messages.
- High degree of understandability and avoid too much of memorization of events and commands for the users.

ii- *Reliability and Accuracy*

The system should be able to perform accurately the search functions as requested by the users and able to eliminate duplicate records, which always maintain an accurate database. Besides, the application system, software or hardware should be stable and reliable and will not cause any unnecessary downtime of the overall environments.

iii- *Efficiency*

The process should be able to call or access in unlimited numbers of time, and similar outcome at credible speed.

iv- *Maintainability*

The proposed system should be easily to modify, test and update to meet new requirement, error handling or move to a different computer system.

v- *Simplicity*

The system should let users to have a clear picture of information display, which the system should focus on users' attention.

3.6 Chapter Summary

In this chapter, the methodology of developing the system has been decided, as the Waterfall Model with Prototyping approach will be used. Also, the user requirement analysis has been done and the needs are listed. After I had gone through will the research and reading, the system requirement when developing and implementing the system are also been covered. In the next chapter, the actual system design will be mainly focused, as the actual data flowing process will be covered.

Chapter 4 System Design

4.1 Preface

System design is a process to convert the conceptual ideas from the requirement specification in system analysis into more technical specification. In this phase, the system requirements gathered during the analysis phase and research conducted earlier were transmitted into a representation of system. Initally, the representation depicts a holistic view of system; subsequently refinement leads to a design representation that is close to source code. In this system design phase, input, output, file and database are produced which include the design of input forms, screen in order to gather input data and file specification. The objectives of system design are listed below :

i- Specify Logical Design Elements

Detailed design specifications that describe the features of an information system: input, output, files and database and procedures.

ii- Meet User Requirements

Meet user need stated in term of :

a. Performing appropriate procedures correctly
b. Providing accurate results
c. Using appropriate method of interaction
d. Providing overall reliability

iii- Ease to use

a. Favourable human engineering
b. Ergonomic design that is physically comfortable to user effectiveness and efficiency.

4.2 Program Design

When doing system analysis, the conceptual freedom afforded by the data flow diagrams(DFD), which graphically characterize data processes and flows in a business system are used. A series of layered data flow diagrams may also be used to represent and analyze detailed procedures within the larger system.

Through DFD, a graphical representation of data processes throughout the organization can be put together. The data flow approach emphasizes the logic underlying the system. By using of only 4 symbols, the system analyst can create a pictorial depiction of processes that will eventually provide solid system documentation.

4.2.1 Why using DFD?

The data flow approach has four chief advantages over narrative explanations of many way data moves through the systems. The benefits are :

i- Freedom from committing to the technical implementation of the system too early.

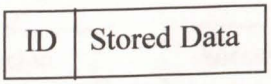
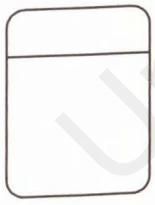
ii- Further understanding of the inter relatedness of system and subsystem.

iii- Communicating current system knowledge to users through data flow diagram.

iv- Analyst of proposed system to determined if the necessary data and process have been defined.

Perhaps the biggest advantages lies in the conceptual freedom found in the use of the four symbol in table 4.1.

Table 4.1 The four basic symbols used in data flow diagrams

Component	Description
 Data flow	i- Represent the flow of data or information from one object to another ii- Arrow denoted the direction of data flow iii- Each data flow is labeled with the same or details of the information represented by the data flow.
 Data Store	i- Hold data for a time within the system ii- Comprise 2 sections: a. Identifier information b. Description of the data stored
 Entity	i- Any objects in the real world, for example person
 Process	i- Transform the input data to output data ii- Represented by rounded rectangle shape iii- Comprise 2 or 3 sections : a. Top section contains the identifier information b. Center section contains a description of the process c. Lower section contains the physical or computer program information.

4.2.2 Conference Management System Structure Chart

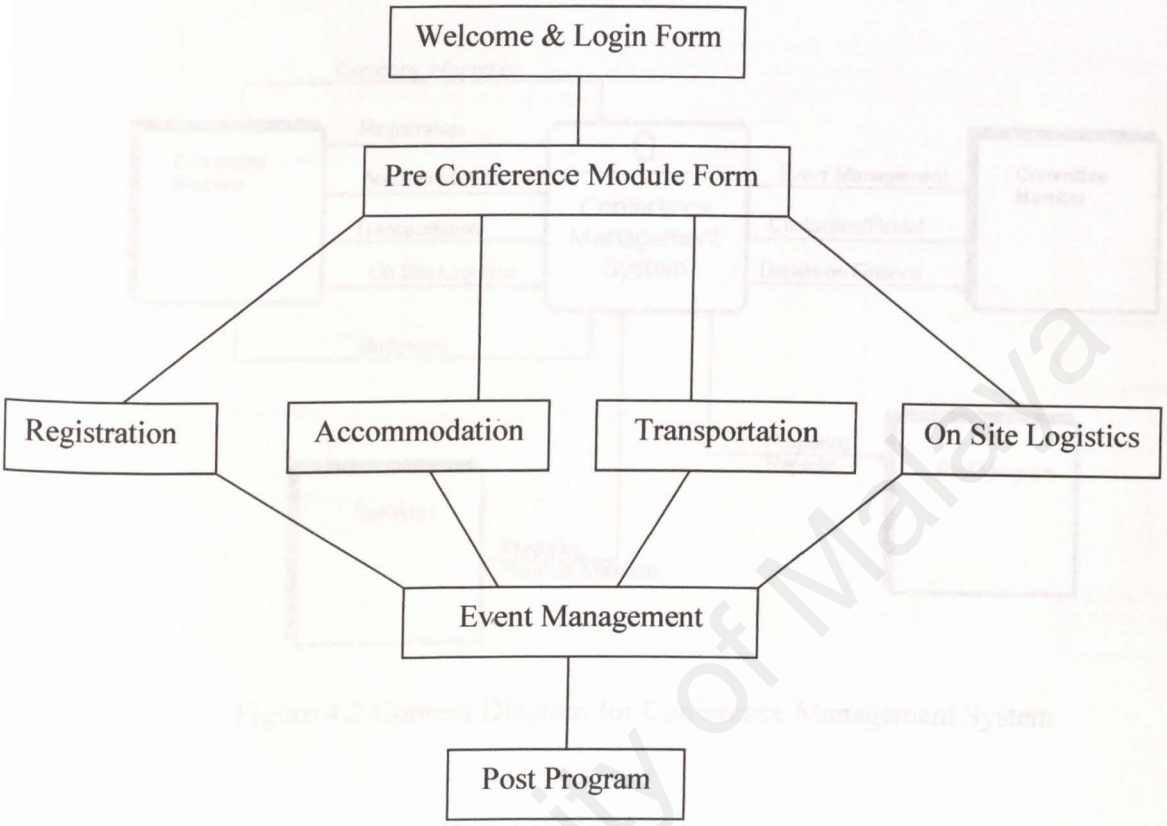


Figure 4.1 CMS Structure Chart

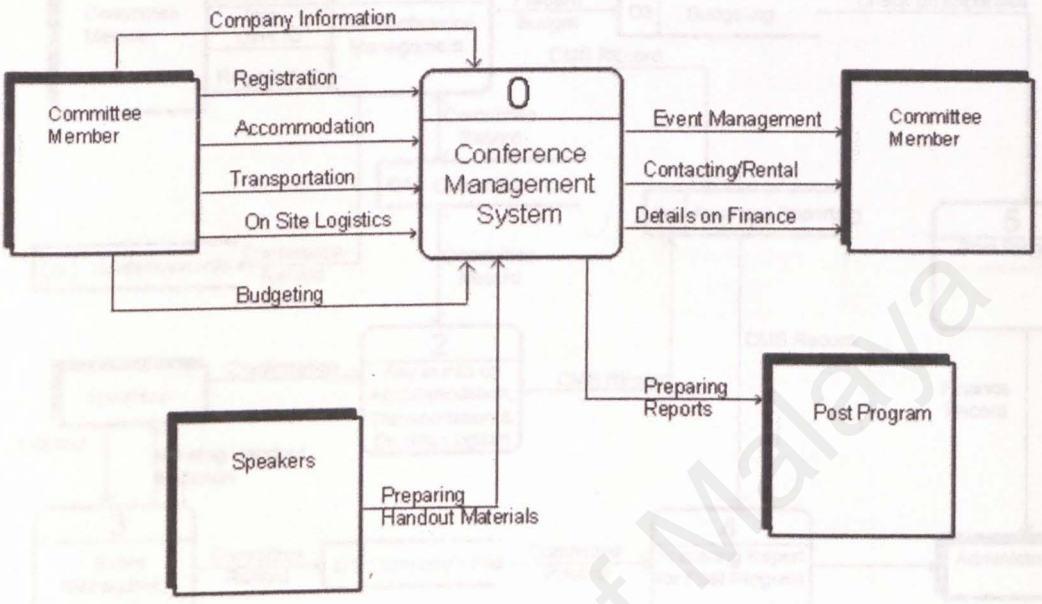


Figure 4.2 Context Diagram for Conference Management System

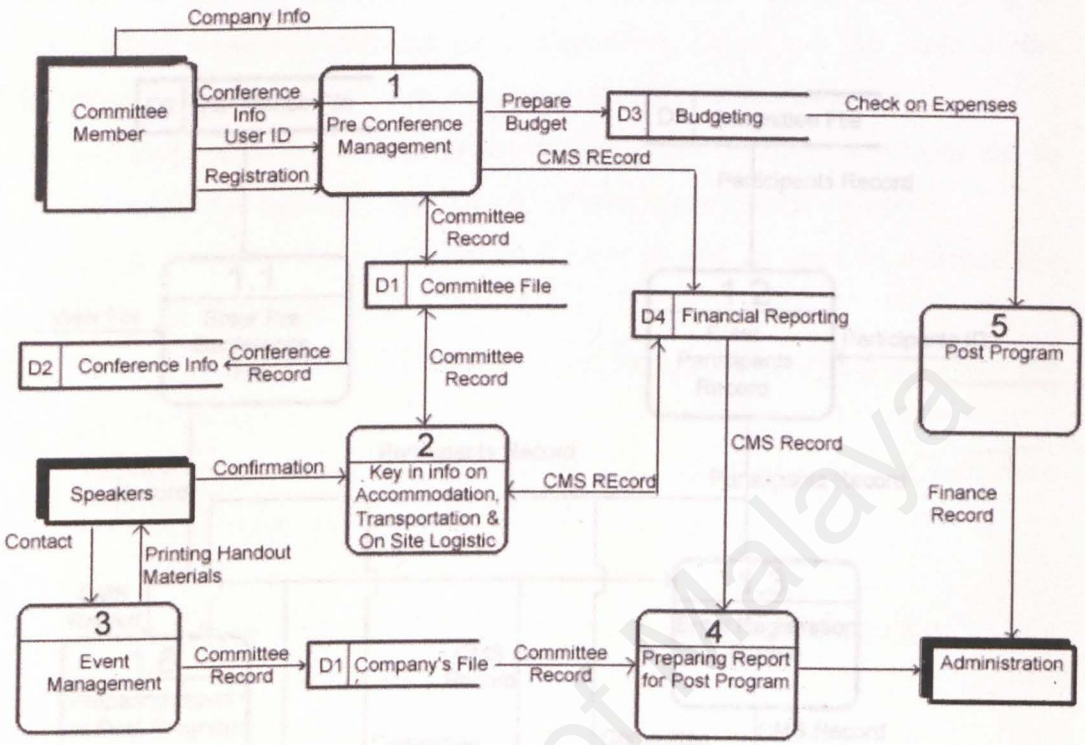


Figure 4.3 Data Flow Diagram Level

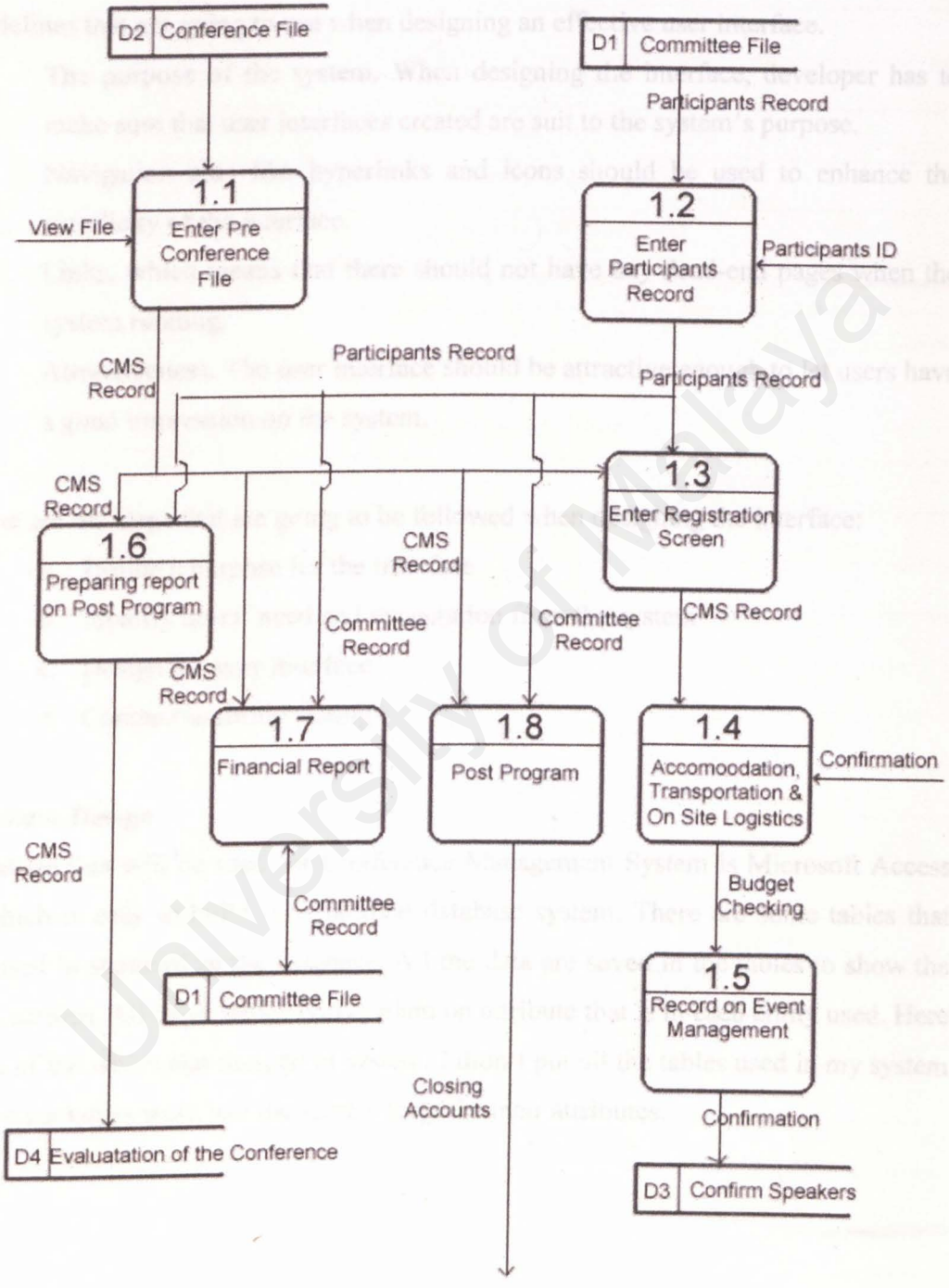


Figure 4.4 Conference Management System Data Flow Diagram

4.3 User Interface Design

For the user interface design, the Graphical User Interface(GUI) approach is going to be used, which creates a user-friendly environment. Below are the some of the guidelines that are going to use when designing an effective user interface.

i- The purpose of the system. When designing the interface, developer has to make sure that user interfaces created are suit to the system's purpose.

ii- Navigation aids like hyperlinks and icons should be used to enhance the simplicity of the interface.

iii- Links, which means that there should not have any dead-end pages when the system running.

iv- Attractiveness. The user interface should be attractive enough to let users have a good impression on the system.

These are the steps that are going to be followed when designing the interface:

a. Define a purpose for the interface
b. Identify users' need and expectation from the system
c. Design the user interface
d. Conduct usability testing

4.4 Database Design

The database that will be used for Conference Management System is Microsoft Access 2000, which is easy to build up relational database system. There are some tables that will be used in standardize the database. All the data are saved in the tables to show the different entities. All these tables will explain on attribute that is in each entity used. Here are some of the tables that include in system. I didn't put all the tables used in my system here since the tables were just the same except for their attributes.

Table 4.2 Login User Table

Field Name	Data Type	Description
UserID	Text(10)	User login ID
Password	Text(10)	User password
NewID User	Text(10)	New user ID
NewUserPW	Text(10)	New User Password
Password Confirm	Text(10)	New Password Confirmation

Table 4.3 Accommodation Table

Field Name	Data Type	Description
Name	Text(50)	Name of the hotel
Address	Text(50)	Address
City	Text(50)	City
State/ZIP	Text(50)	State/Zip
Person	Text(50)	Person in-charge
Phone	Number	Contact Number
Fax	Number	Fax Number
Email	Text(50)	Email address of the hotel
Website	Text(50)	Hotel's website
ReservNum	Number	Reservation Number
SingleBed	Number	Number of rooms
SingleRate	Number	Room rate
DoubleBed	Number	Number of rooms
DoubleRate	Number	Room rate
Suite	Number	Number of rooms
SuiteRate	Number	Room rate
NumberParticipants	Number	Number of participants

NumberVIPs	Number	Number of VIPs
CheckinDay	Text(50)	Check in day
CheckinDate	Date/Time	Check in date
CheckinTime	Date/Time	Check in Time
CheckoutDay	Text(50)	Check out Day
CheckoutDate	Date/Time	Check out Date
CheckoutTime	Date/Time	Check out Time
pool	Yes/No	Pool
healthcentre	Yes/No	Healthcentre
shops	Yes/No	Shops
restaurant	Yes/No	Restaurant
bar	Yes/No	Bar
golfcourse	Yes/No	Golfcourse
Other Available Services	Memo	Others

Table 4.3 On Site Logistics(Audio/Video/Lighting) Table

Field Name	Data Type	Description
A/V Provider	Text(50)	Company's Name
Contact	Number	Contact Number
Setup	Date/Time	Date of set up
Standby1	Text(50)	Name of the person
Lighting	Text(50)	Lighting Company
ContactPerson1	Text(50)	Contact person
ContactNumber1	Number	Contact number
SetupDate	Date/Time	Date of set up
Standby2	Text(50)	Standby person
Designer	Text(50)	Stage Design Company

ContactDesign	Text(50)	Name of the person in-charge
ContactdesignNo	Number	Contact Number
SetupDate1	Date/Time	Date of set up

Table 4.4 On Site Logistics(Food&Beverage) Table

Field Name	Data Type	Description
Catering	Text(50)	Catering Company
Person	Text(50)	Person in-charge
Number	Number	Contact Number
Breakfast	Number	Number of servings
BreakfastFood	Text(50)	Types of food
Break	Number	Number of servings
BreakFood	Text(50)	Types of food
Lunch	Number	Number of servings
LunchFood	Text(50)	Types of food
Hightea	Number	Number of servings
HighteaFood	Text(50)	Types of food
Dinner	Number	Number of servings
DinnerFood	Text(50)	Types of food

Table 4.5 On Site Logistics(Printing/Souvenir) Table

Field Name	Data Type	Description
Company	Text(50)	Name of the printing company
Person	Text(50)	Person in-charge
ContactNum	Number	Contact Number

DataSend	Date/Time	Date and Time to send the Data
RegForm	Number	Number of each pieces
Brochure	Number	Number of each pieces
Posters	Number	Number of each pieces
Invitation	Number	Number of each pieces
Certificate	Number	Number of each pieces
Handout	Number	Number of each pieces
Speakers	Number	Number of each pieces
Programme	Number	Number of each pieces
Label	Number	Number of each pieces
GuestBadge	Number	Number of each pieces
SpeakersBadge	Number	Number of each pieces
SouvenirGuest	Text	Types of souvenir
GuestSouvNo	Number	Number of each pieces
SouvenirParticipant	Text	Types of souvenir
ParticipantNo	Number	Number of each pieces

4.5 Screen Shot of Future System

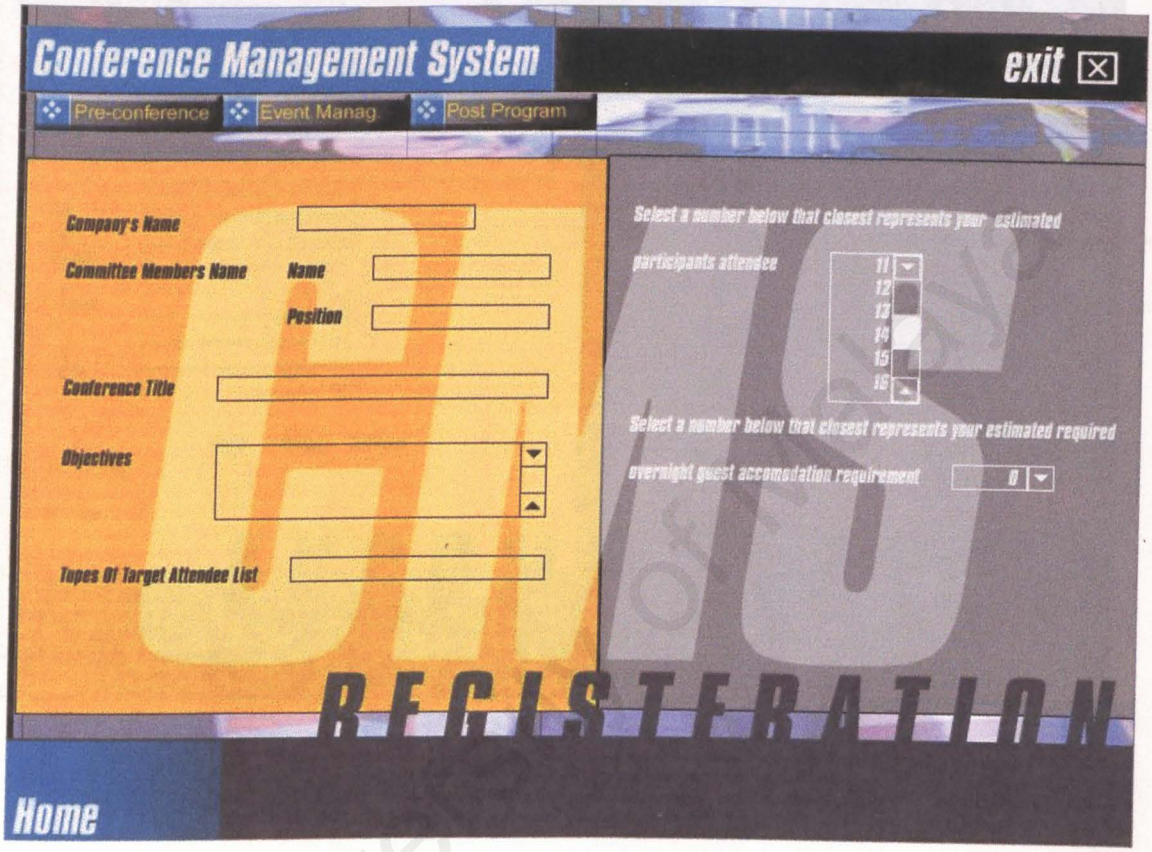


Figure 4.5 Registration Form in Pre Conference Module

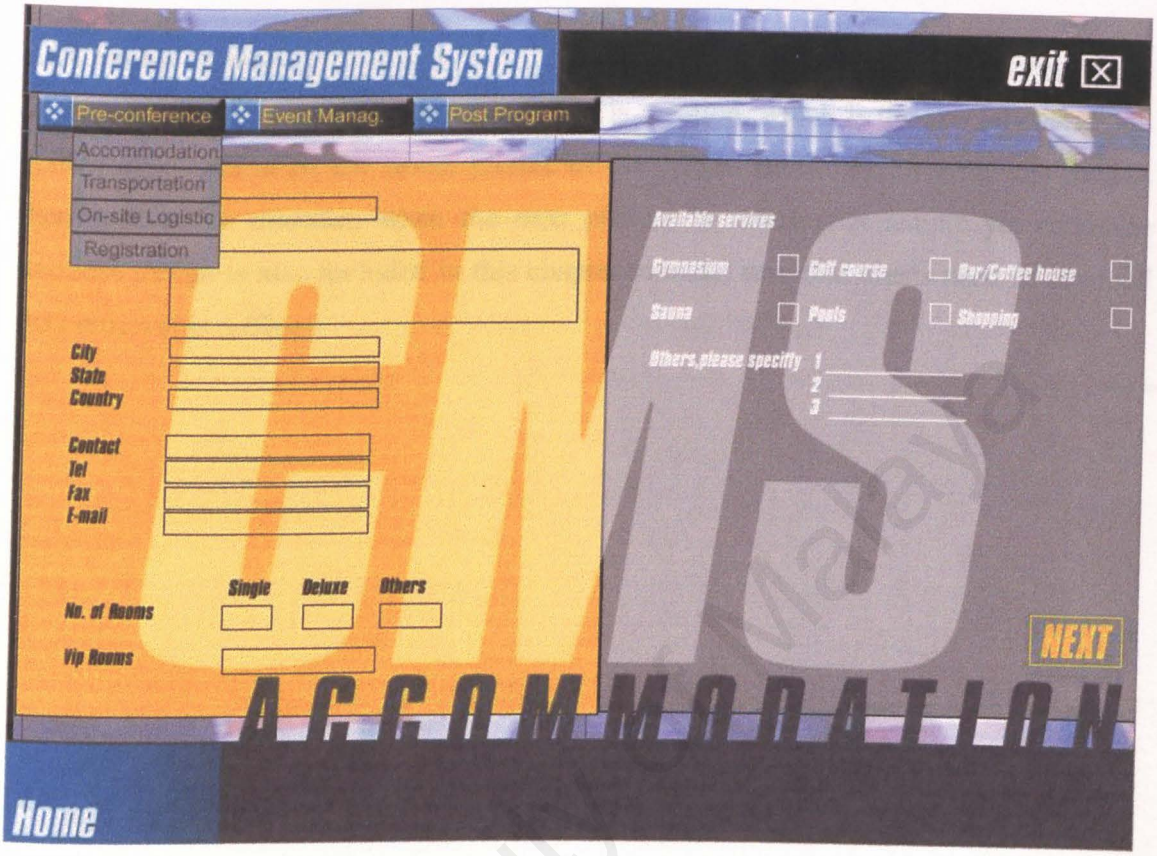


Figure 4.6 Accommodation Form in Pre Conference Module

4.6 Chapter Summary

In this chapter, the proposed system's design is mention, which is the crucial part of the system development as the whole picture of the system should be clear enough so that there will be no mistakes when the next process is running. A simple yet complete database design is also included in this chapter to make sure that user's need in sense of data retrieval is fulfilled.

Statement of Expected Outcome

By the end of this stage, the whole system should be clear enough to expect the product's outcome. The final system is expected to have a user-friendly interface, which can attract users to use the system. The system also has a comprehensive management system that may help the organiser of the conference to plan and conduct a conference much better than before. With all the 6 modules that I had proposed, I hope that the system will be the best among the best system that can manage a conference. Hopefully that the Pre Conference Module to Post Program Module will be functioning as I had proposed.

Development Schedule Project Workflow

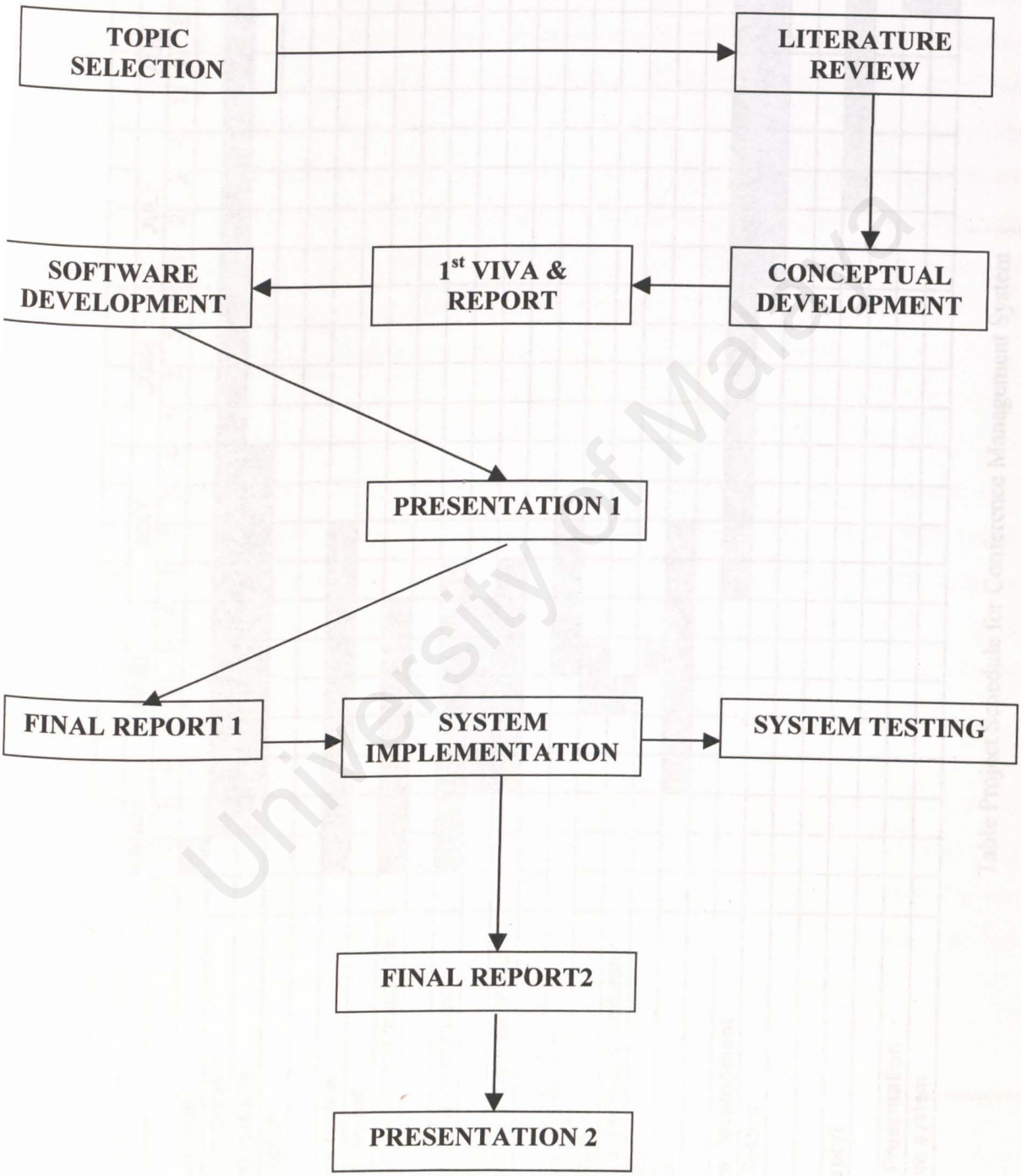


Table Project Schedule for Conference Management System

Chapter 5 System Implementation

5.0 System Implementation

System Implementation is a phase transforming the design model of the system into a workable system. The major sections of system implementation are coding and testing. The primary goal of this phase is the production of a simple, clear source code with internal documentation that will ease the processes of verification, debugging, testing, modification and further enhancements. In order to achieve that appropriate tools and languages are needed to code the program. As mentioned earlier, all the hardware and software described in the Methodology Phase were used in the process of developing the system. By using Macromedia Dreamweaver Ultradev 4.0 things were easier when come to the process of designing the user interface.

5.1 Interface Design

The goal of interface design is to provide the best way for people to interact with computers. Provision of good interfaces is becoming more important because of its impact on organizations. This impact is increasing, because most people in organizations are spending more time interacting with computers as part of their work, like entering the information for CMS in the system. Good interfaces will improve the personnel productivity, quality of work performed and effectiveness of an organization.

5.2 Learning Dreamweaver

In the process of learning Dreamweaver Ultradev 4.0, I had make some efforts by reading books, try and error by using the software itself, did some tutorials from the given software and surfing the internet for the online tutorials on Dreamweaver and of course some help from friends that familiar already with the flowing of Dreamweaver.

5.3 Learning Microsoft Access 2000

Microsoft Access 2000 is a windows-based database management system. It is one of the programs in Microsoft Office. With Access I learnt much on how to manipulate all the information that will be stored in the database in variety of ways. Some things that I learnt with Access are :

a. Open tables and enter data into them
b. Manipulate and perform calculations on the data
c. Format the data
d. Perform financial, mathematical and statistical calculations
e. Design quiries for retrieving information in a database or performing calculations
f. Automate tasks
g. Access the internet/intranet and view related information anywhere on the Worldwide Web or in database.

I learnt database subject during my second year and I was quite familiar already with it but not into depth since I just had a chanced on designing some simple database and not too big to use like I was doing for my thesis.

5.4 Database Connections

ASP Applications developed in Ultradev can connect to a wide variety of databases such as Access 2000, Oracle, SyBase and more. Ultradev provides many methods which can connect to the database. Ultradev uses the connection make to a database to display data at design time as well as runtime. During design time, Ultradev uses these connections to show dynamic data in Live Data view. Live Data view gives a preview data as it appears at runtime. This helps to make necessary changes to the data presentation before it can be hosted on a Web server. To be able to connect to a database from Ultradev, you need to have access to a web server, an application server and the database driver be installed in the development machine. These resources can exist on a remote machine, and can still access them from Ultradev. To connect Web application to a database, I need to use a communication standard such as Open Database Connectivity(ODBC).

5.5 Open Database Connectivity(ODBC)

Open Database Connectivity emerged as a solution to provide connectivity between databases and applications. The standard sets by ODBC enable connectivity to a wide variety of databases that existed in different formats on different platforms. These standards are implemented in ODBC Application Programming Interface(API) to communicate with a database. The ODBC driver acts as an interpreter between the application and the database. The application communicates with the driver through a set of SQL statements. By using ODBC API, the driver translates these SQL statements. By using ODBC API, the driver translates these SQL statements into a format the database can understand. ODBC has rapidly gained widespread acceptance, and a number of databases comply with the ODBC standards. Databases that comply with the ODBC standards are known as ODBC compliant databases.

5.5.1 Creating and Managing Database Connections

In Ultradev, a web application can use a direct connection to access a database or use an application server to connect to a database. To create a direct connection, I need to have the required database driver on my development machine. Ultradev uses ODBC installed on my machine to create a direct connection to the database.

5.5.2 ODBC Connections : Data Source Name(DSN)

Data Source Name is created on a Windows computer to connect to ODBC-compliant databases and a connection string is used to connect to ODBC databases. DSN is easier to use because its like a shortcut to connect to a database. In Ultradev, ASP application can connect to ODBC databases by using a connection string or DSN. When I create a connection to a database, I have to specify vital information such as the database's name and location and the name of the database driver that supports the database. A DSN encapsulates all this information by providing a name that can be used as a shortcut while creating a database connection. Therefore, when I created the connection using DSN, I need to specify just the DSN without having to specify just the DSN without having to specify all the connection information.

An ODBC connection to an Access database :

Driver={Microsoft Access Driver (*.mdb)};DBQ=path of the database;

UID=userid;PWD=password

5.6 Personal Web Server(PWS)

Microsoft Personal Web Server is a desktop Web server that makes it possible to publish personal home page and share documents on the corporate network right from our own computer. Or, use PWS as a development staging platform before uploading site to an Internet provider. What does a Web server do? In the same way big Web servers at an Internet Web site, such as www.microsoft.com, make documents available to Internet visitors, PWS makes documents available by Web browser from the corporate intranet. At home, I can use a browser to preview my site before uploading, to see how it looks and functions when served.

5.7 My Workflow

The process of building Web applications has 2 marked phases, one of creating a page design and the other of adding dynamic functionality to the page. The tools and features of Ultradev aid in the entire process of developing dynamic Web Application, from the page design phase to that hosting the Web application on the server. As Web development happens in a step-by-step process, it helps to learn how the Ultradev environment models the development process. I will give some overview of the various required task when I developed CMS to build Web Application. I'll give some brief descriptions of the various tools that Ultradev provides in order to carry out these tasks. There are 4 distinct phases in the Ultradev workflow pattern.

These phases are as follows :

i- Design and lay out a page

ii- Specify sources of data from which dynamic content will be added to the page.

iii- Add dynamic content to the page.

iv- Extend the functionality to the page.

5.7.1 Designing A Page

Page design in Ultradev follows an approach similar to Dreamweaver. I can use layers or tables for page layout. After I layed out the page, I added elements such as text, images, forms to the page. Forms are an important component of dynamic Web applications because they are essntial for including interactivity in a page. My pages designed had to have dynamic content displayed in them, so it is best to decide in advance what elements in a page are going to be dynamic. This allowed me to decide on alternative design strategies to be applied to the dynamic elements. One such design decision can be the space that must be alotted to the dynamic elements. For example, I planned to include logon feature in my website, I had to display personalized welcome message to greet the user by name after the logon is successful. In this case, the welcome message will have a dynamic text, which contains the name of the user. Deciding on the portion of the welcome that contains the dynamic text allows me to decide on the space that must be allotted to this dynamic text. I should take care to ensure that the part where a dynamic element is going to appear is appropriately labeled. This makes the type content that will appear in that element clear to me. As for the user who is going to view the page, labels for dynamic content explain more clearly what the information is all about. The Live Data View allows to see how the page will look with the actual data. As dynamic content can be previewed in the Live Data View, I can make format-related changes to the Live Data,depending on how the appearance of the live data affects the other elements in the page.

5.7.2 Creating Data Sources

Dynamic web applications require a data source from which they can retrieve and display up-to-date information. Therefore the primary step in creating dynamic pages is to identify a data source. Data sources can be database or browser variables such as request,application and session variables.

5.7.3 Adding Dynamic Functionality to A Page

After I had specified the data sources that I wanted to use, the next phase involves binding the dynamic data to the elements in the page. Adding dynamic data is a simple process of dragging and dropping the required data onto the page element where I wanted the data to appear. Ultradev generates the server-side script when I chose the data source in the Data Bindings panel. This code directs the server to retrieve the specified data and display it on the Web page during runtime.

5.7.4 Extending the Functionality of A Page

Adding dynamic content by using the Data Bindings panel alone does not give my page all the functionality that I wanted. I could add server behviours and live objects to give my page more functionality. A server behaviour such as Repeat Region, allows to display multiple records in the page, whereas live object, such as Recordset Navigation Status, displays a record counter on my Web page. Ultradev comes with a set of predefined objects, which I can use to introduce dynamic functionality to the page. However if I wanted to create more server behaviours that give my page added functionality, I could created my own using Ultradev Application Programing Interface(API). There are a number of freeware and shareware extensions available at Macromedia Exchange.

5.8 Identifying ASP Scripts

The scripts in an ASP page are embedded within a tag that consists of a percentage symbol delimitting the left and right angular brackets. Anything written between the <% tag and the %> tag is interpreted by the server as server-side code that needs to be processed to send the results containing dynamic content to the browser in an HTML format. The server does not parse the HTML statements written outside these tags. The first line in an ASP page differs depending on the language chosen. The general syntax for the first line in an ASP page is as follows :

<%@ Language=VBSCRIPT %>

or

<%@ Language=JAVASCRIPT%>

5.8.1 Five Objects of ASP

i- Application Object : Contains global application-level information that can be shared by several applications running at the same time.

ii- Request Object : Retrieve the information that a user send from a browser. Form data,query string data, and information from cookies are some examples of information that can be sent from a browser. The request object can also be used to access information from environment variables. An example of an environment variable is the name of the web server used by the client computer.

iii- Response Object : Sends processed information to the browser. It decides when and how the results should be sent to the browser. The response object can be used to redirect the user to another page as well as write cookies to the browser.

iv- Server Object : Creates objects that can control server functions, such as opening or closing a connection with a database and reading information from files. The methods and properties of this object can be used for carrying out commonly performed tasks.

v- Session Object : Maintains information about the current session if a single user who is accessing a particular web application. Information, such as user's login name and the contents of the user's personal information, for a session is maintained in this object.

5.8.2 The Response Object

The most commonly used method of the Response Object is the Write Method. Using this, data can be send to be displayed on the browser.

The following is the syntax for the Write Method :

Response.Write (expression)

The expression mentioned in the preceding syntax can be a character, an integer, or text, each of which is expressed as a string.

Example :

```
<html>s
<head>
<title>Introducing ASP</title>
</head>
<body bgcolor="#FFFFFF" text="#000000">
<%Response.Write ("Welcome to ASP") %>
</body>
</html>
```

5.8.3 The Request Object

To read form data, the ASP page uses the Request Object. The Request Object has 2 collections, QueryString and Form. The Querystring collection is used to access data passed through a querystring and the Form collection accesses data passed by the POST method. The following is the syntax for the use of these 2 collections with the Request Object :

Request.QueryString(Variablename)

To display the value of the firstname field, the 2 collections of Request Object can be used as follows :

```
<% =Request.QueryString ("firstname") %>
or
<% =Request.Form ("firstname") %>
```

Example :

```
<%@ Language=VBSCRIPT%>
<% dim readname
readname=Request.Form("name")
Response.Write "The username entered on the form is " & readname %>
```

5.8.4 The Session Object

This contains session variables, which store the values retrieved from a particular session. Session variables can be created with the following syntax :

Session (sessionvariable)=value

The following is the syntax used to read the values stored in a session variable :

Readsessionvariable=Session(sessionvariable)

Example 1 Creating A Session Variable

```
<%@ LANGUAGE=VBSCRIPT %>
<HTML>
<TITTLE> FORM WHERE USER ENTERS HIS NAME </TITLE>
<% Dim string
 string=Request.form("name")
Session("username"=string
%>
</HTML>
```

Example 2 Reading A Session Variable

```
<%@LANGUAGE=VBSCRIPT%>
<HTML>
<% Dim readname
readname=Session("username")
Response.Write "Welcome " & readname & " !"
%>
</HTML>
```

5.8.5 The Application Object

The syntax for creating an application variable is as follows :

Application (applicationvariable)=value

The Application Object contains similar collections as the Session Object. It contains the Remove and RemoveAll methods of the Session object. In addition to these methods, the Application Object contains 2 more methods, Lock and Unlock. The Loch method prevents clients from modifying the properties of the Application object, whereas the Unlock method allows clients to modify the properties of the Application Object.

5.8.6 The Server Object

The server object provides basic methods and properties that carry out common tasks on the Web Server. For example this object is used most commonly to create instances of server components. The server object has methods such as CreateObject,HTMLEncode,URLEncode and Execute.

The CreateObject method is used with the Set statement to create instances of component objects. The following is the syntax for the CreateObject method :

Set <instanceofobject>= Server.CreateObject ("Class.Component")

Object	Description
Connection	Connects an application to a database.
Recordset	Creates a recordset, which is a set of rows from a table.
Error	Stores errors that are generated while connecting to a data source.
Command	Creates a recordset object by combining the Recordset and Connection objects.
Parameter	Stores the parameters needed by the Command object.
Field	Stores the data of a field in a table.

Table 5.0 The Objects in THE ActiveX Data Objects(ADO) Component

5.9 Creating A Connection to A Database

The following is the syntax for creating a connection to a database :

<% Dim connect

Set connect = Server.CreateObject(ADODB.connection")%>

For opening the connection :

<% connect.Open %>

The steps for creating and opening are as follows :

<%Dim connect

Set connect =Server.CreateObject("ADODB.connection")

Connect.ConnectionString="DSN.mydatabase"

Connect.Open

%>

After opening a connection and retrieve data from the database, I need to close the connection. The close method is used to close a connection, this method releases the memory occupied by the connection object. The following statements accomplish this :

<% connect.Close

Set Connect = Nothing %>

5.10 Retrieving Data from The Database

ASP stores the data retrieved from a database in an object called Recordset that is part of the ADODB component. This Recordset Object can contain either specified rows in a table or the entire table. To read data from a database, an instance of the Recordset Object has to be created. The syntax for this is as follows :

<%Dim recordsetobj

Set recordsetobj = Server.CreateObject ("ADODB.Recordset") %>

After creating the a recordset object, it has to be filled with records retrieved from the database. To do this, the Open method is used. The syntax for the Open method is as follows :

Recordsetobjectname.Open source, connection, cursortype, locktype, commandtype

The Open method has five arguments. The first argument, source, refers to the name of the data source. The second argument, connection, refers to the name of the connection object that is created. The third argument, cursortype, specifies the way the cursor moves through a recordset. The forth argument, locktype, indicates the access rights for a table and the last argument, commandtype, describes the source that is specified as the first argument.

5.10.1 Reading from A RecordSet

After a recordset is filled with data that is retrieved from a database, this data has to be read so that it can be displayed onscreen.

The following is the syntax for reading data from a recordset :

recordsetobjectname ("fieldname")

To traverse through the records in a recordset, the Recordset object uses a pointer that moves to each record in the recordset. The recordset object has methods that direct the pointer to move in a particular direction.

Method	Description
MoveNext	Moves the recordset pointer to the next record in a recordset.
MovePrevious	Moves the recordset pointer to the previous record in a recordset.
MoveFirst	Moves the recordset pointer to the first record in a recordset.
MoveLast	Moves the recordset pointer to the last record in a recordset.
Move recordnumber	Moves the recordset pointer to a specified record in a recordset.

Table 5.2 Methods of The Recordset OBJECT

To close a recordset after it used, the Close Method is used. This method releases the memory occupied by the Recordset object. The following is the syntax for closing a recordset :

recordsetobj.Close

Set recordsetobj = Nothing

5.10.2 Inserting, Updating and Deleting Records

The recordset object can be used for inserting records into a database. The AddNew and Update methods of the Recordset object will enable to insert records.

For example :

```
<%recordsetobj.AddNew
recordsetobj("name") = "Mary"
recordsetobj("age") = "20"
recordsetobj.Update %>
```

The following syntax shows the usage of the Update and CancelUpdate methods :

```
recordsetobj("name") = Request.Form ("name")
If recordsetobj("name")= " " then
        recordsetobj. CancelUpdate
Else
        recordsetobj.Update
```

For deleting records from a database, use the Delete method of the Recordset object. The logic is to move the record pointer to a particular record and then use the Delete methd

The syntax for using this method is :

Recordsetobjectname.Delete

5.11 Chapter Summary

This chapter basically summed up all the methods that I've been using while implementing my system. With the help of Dreamweaver Ultradev books and tutorials I managed to come up with an idea on how to build a web base system and understand an ASP technology which can create dynamic Web pages. I had include all the steps by steps action taken during the implementation of the system by looking up on how did I came up with the requirements and put the coding.

Chapter 6 System Testing

6.0 Overview of Testing

System errors and failures occur mainly because of inadequate or improper testing. Quality system however demands that system be tested properly. The purpose of testing is to detect the presence of errors in system; errors that have not been discovered yet. That means, a good test case is one that has a high probability of finding as a yet undiscovered error. A successful test is one that discovers errors whereas an unsuccessful test is one that discovers no errors. The goal is to design tests that will uncover the greatest number of errors or classes of errors in minimum amount if time and effort. Successful testing will result in quality system; system with fewer errors and which work according to specification and performance requirements. It will lead to dependable and reliable system.

6.1 Testing Principles

Several principles have been suggested for testing system:

i- Tests should be planned long before testing begins.

ii- All tests should be traceable to customer requirements. That means, the software must meet all the requirements of the user. In other words, the system must be validated against user requirements.

iii- Testing should begin in small and progress toward testing in the large, from micro to macro or from small modules to large modules.

iv- Exhaustive testing is not possible. There are far too many paths even in a moderately sized program. And for each path, there are usually many test cases.

v- An independent third party must conduct testing, not by those who designed the system. This minimizes bias in testing, as those who developed the system know exactly how the system works. They are not likely to interact in a way contrary to the expectations of the system.

6.2 Testability

The system designed must be amenable to testing. That means the system must have the following characteristics:

i- **Simplicity**. The simpler the system, the easier it is to test it. System simplicity means that it is functionally and structurally simple and that it follows proper standards.

ii- **Understandability**. A system is understandable if its design and the interfaces between modules are easy to understand. Understandability also implies that the associated documents are accurate, complete, accessible and easy to follow.

iii- **Operability**. The system must work properly if you want to test it. That means, it must have as fewer errors as possible and that no bugs block the execution of tests.

iv- **Observability**. This means the system states and variable are visible or can be queried during execution, all factors affecting the output are visible, source code is accessible, internal errors are detected and reported, distinct outputs are generated for each input, and incorrect outputs are easily identified.

v- **Controllability**. This implies that all code is executable through some combination of input, all possible outputs can be generated through some combination if input, input/output formats are consistent and structured, and tests can be conveniently specified, automated and reproduced.

vi- **Decomposability**. The system is built from independent modules and that each module can be tested independently. This helps to isolate errors and perform retesting more easily.

vii- **Stability**. The system changes are infrequent and controlled, changes do not invalidate existing tests, and recovers well from errors.

6.3 Attributes of a Good Test

i- It should not be redundant, have the same purpose as another test. It will simply waste time and resources. That means every test must have different purpose.

ii- It must have a high probability of detecting an error. That means, the tester must picture how the system might fail. Ideally the potential classes or errors are identified and tests are designed to detect those classes of errors.

iii- It must uncover a whole class of errors.

iv- Each test case should be executed separately. Combining several tests may be cheaper but it may result in side effects that may mask errors.

6.4 Designing Test Cases

One of the objectives in test case design is to uncover the most number of errors with the minimum amount if time and effort. The test case must have the highest likelihood of detecting errors in the system. A number of approaches or strategies have been proposed to this end with verifying degrees of success. They are:

a. Functional/Black-box Testing

This is intended to exercise or test the functions specified in the system. It derives its test cases from the program specification. Know each of the function must do and design test cases to demonstrate that it works properly.

b. Structural/White-box/Glass Testing

This is used to exercise or test the internal structure of the system. It derives its test cases from the knowledge of the program's internal structure.

c. Interface Testing

This is to test the user interface. It derives its test cases from the program specification as well as from the knowledge of its internal interfaces. This is especially important in the Windows environment.

The coding and integration stage begins after the detailed design phase is complete. During this phase of the system development cycle, module is coded and documented using the detailed design as a blueprint. As each module in CMS is written, it is tested for

errors and any errors discovered are removed. The modules are then assembled together together to build the system. As the modules are integrated, the system is tested. After the integration is completed, the entire system is tested further for errors. It is important to consider ahead of time the order in which the modules are to be coded and the strategy used to build the system. The approach used in coding the modules and assembling the system is called an integration strategy. There are several alternative methods, each of which has its pros and cons.

Coding and testing are carried out in parallel. The approach chosen to guide integration affects both the progression of the coding and the scheduling of testing activities. The levels of testing include:

- ***Module Testing***. Tests if the individual modules meet the required specifications and are correctly coded.
- ***Integration Testing***. Tests if all the modules (when integrated) work correctly. This ensures that the modules are correctly interfaced.
- ***Function Testing***. Tests if all the functions required by the application and specified in requirements specification document are working properly.
- ***Performance Testing***. Tests if the performance of the system meets the required specifications. (non-functional requirements)
- ***Acceptance Testing***. Tests if the system can be accepted for production (operation).
- ***Installation Testing***. Tests if the system works correctly in the real environment. This is not necessary if the system is developed in the user's site.

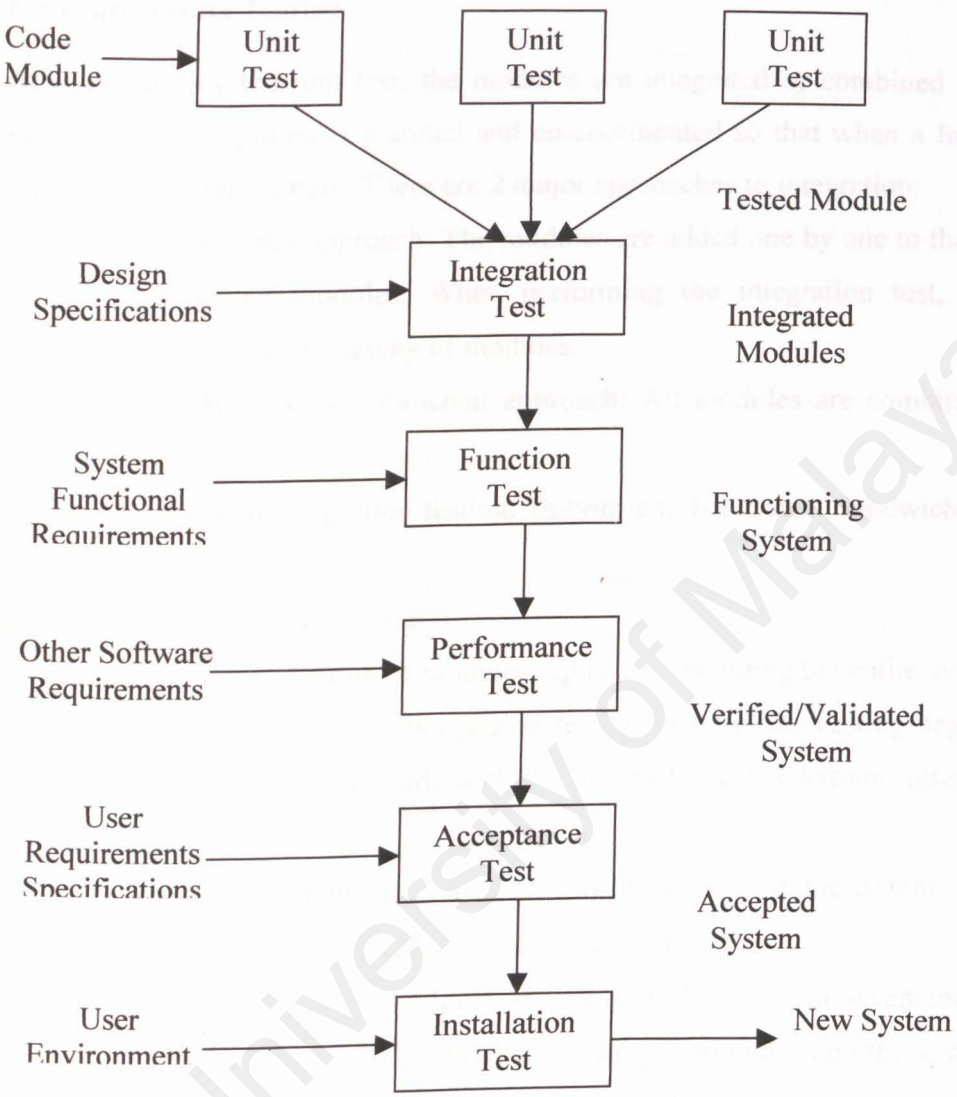


Figure 6.0 Levels of Testing

6.5 Testing Strategies

6.5.1 Integration Testing

After performing the unit test, the modules are integrated or combined into a working system. This integration is planned and co-coordinated so that when a failure occurs, it can be solved immediately. There are 2 major approaches to integration:

i- Incremental approach: The modules are added one by one to the set of already integrated modules. When performing the integration test, the system is viewed as a hierarchy of modules.

ii- Big bang/Non-incremental approach: All modules are combined together in one step

There are 4 types of integration testing: Bottom-up, Top-down, Sandwich and Big-bang Testing.

6.5.2 Testing the Entire System

This refers to testing of group of modules, up to and including the entire system. The first level of testing in the large is integration testing. Integration Testing begins by testing small groups of modules and ends with the testing the entire system. Integration testing has 2 broad purposes:

- To test the interfacing and integration of the modules in the system
- To test the functional performance of the system

Acceptance testing is the second level of testing in the large. In acceptance testing, the user tests the entire system. The goal of this testing is to make sure the system meets the user's requirements.

6.5.2.1 Acceptance Testing by Users

Once the system tests have been satisfactorily completed, the system is ready for acceptance testing, which is testing the system in the environment where it will eventually be used. The purpose of acceptance testing is for users to determine whether the system meets their requirements. The most complete acceptance testing will include alpha testing, where simulated but typical data are used for system testing; beta testing, in which live data are use in the user's real working environment.

During alpha testing, the entire system is implemented in a test environment to discover whether or not the system is overtly destructive to itself or to the rest of the environment. The types of tests performed during alpha testing include the following:

i- Recovery testing- forces the system to fail in order to verify that recovery is properly performed.

ii- Security testing- verifies that protection mechanisms built into the system will protect it from improper penetration.

iii- Stress testing- tries to break the system (for example, what happens when a record is written to the database with incomplete information)

iv- Performance testing- determines how the system performs on the range of possible environments in which it may be used (for example, different hardware configurations, networks, operating systems); often the goal is to have the system perform with similar response time and other performance measures in each environment.

In beta testing, subsets of the intended users run the system in their own environments using their own data. The intent of the beta test is to determine whether the software, documentation, technical support, and training activities work as intended. In essence, beta testing can be viewed as a rehearsal of the installation phase. Problems uncovered in alpha and beta testing in any of these areas must be corrected before users can accept the system.

6.5.2.2 Test Planning and Scheduling

The testing process should be precisely specified and set out in the project plan. It is desirable to start test planning at a relatively early stage in the system development process. It is a good practice to start to develop the system and acceptance test suite during the latter stages of requirement specification. The reasons for preparing the system tests and acceptance tests early are that:

- It helps the developers/analysis in carrying out requirements analysis
- It helps to predict the resources required for system and acceptance testing
- It helps to anticipate special-purpose testing tools needed

6.6 Validation and Verification

Validation and verification is the generic term used for checking process which ensures that the software meets its requirements and that the requirement meet the needs of the user. This process id a whole life cycle process. It starts with requirements' review and continues through regular and structured reviews to produce testing.

Main objectives of validation and verification are :

a. Discovery of defects in the system
b. Assessment of whether or not the system is usable in an operational situation.

Validation and verification can be divided into 2 broad groups, which are dynamic and static. Testing is processing program code to carry out validation and verification. Testing is the main dynamic approach to validation and verification. Prototyping can be viewed as a dynamic requirements validation technique. Examples of static techniques include reviews and formal verification.

6.6.1 Static Verification

This does not involve program execution. Instead it concentrates on the examination of its design. The main objective is to detect errors or to prove that the program is consistent with its specification. However this type of verification cannot completely replace testing, as it cannot predict the dynamic behaviour of programs. There are 2 broad classes of static verification technique; Reviews and Formal verification. Reviews are organized manual approaches to checking and analyzing software (code, design specification, requirement's specification). Typical review process are planning, overview, preparation, rework and follow-up. For formal verification is the most complete analysis technique. When using this, I try to prove that a program meets its specification. Typically the specification is given in terms of 2 assertions-preconditions and post conditions, which hold true before and after the system's execution. The system is correct if I can prove that it transforms the preconditions into the post conditions and that it terminates.

6.7 System Debugging

Testing is done throughout system development, not just at the end. It is meant to turn up heretofore unknown problems, not to demonstrate the perfection of programs, manuals or equipment. So to make my CMS works smoothly and well I tried to figure out on method of testing the system before finally present it to the supervisor and moderator.

First of all after I had done with all the user interfaces of CMS, I had to make sure that all the links are linked properly and any errors that occurred in the system, I need to eliminate them step-by-step. Using Dreamweaver Ultradev were very easy since if there were any coding errors, message to alert will pop up straight away and I changed the errors periodically.

When it came to database, Microsoft Access was helping me wonderfully since I was not familiar enough to use this at the beginning. But with the helps of my friends and by reading the book, I managed to handle the situation and finished the part of database. Next step was linking the database with the Dreamweaver Ultradev. I really had to put much effort on this part since I didn't know anything on this. Again researched had been made and from the tutorials that I downloaded from the Internet, really helped me out.

This part I really used try and error method and when it was successfully created the link, I was quite relieved. Next to make it run in the Personal Web Server, I searched for this program since my computer was not set up before with this intranet server, and I learned on how to use of it by asking my friends who were already familiar with this.

Finally I asked some of the corporate leaders, people who are involved in organizing the conference and some friends to try and used this system. I got a lot of feedback and some ideas on how to make my system more user friendly since some of the users maybe quite computer illiterate and they get confused with the functions as well. But after some explanations had been made, I managed to give them their confidence on using this system and I was really satisfied with the system even though there were still rooms of improvements.

Although testing is tedious, it is an essential series of steps that helps assure the quality of the eventual system. It is far less disruptive to test beforehand than to have a poorly tested system fail after setting it up. Testing is accomplished on program modules as work

progresses. Testing is done in many different levels at various intervals. Before the system is put into production, all programs must be desk-checked, checked with test data and checked to see if the modules work together with one another as planned.

6.8 Chapter Summary

This chapter includes on main testing techniques, approaches to incremental integration, and steps in integration testing. During the design stage, the system under construction is decomposed into modules. Initially each module must be tested. When debugging the system any errors found, were tried to solve and sincerely this part was quite hard for me and I satisfied with all my efforts in this system testing.

Chapter 7 System Evaluation

7.0 System Evaluation

System Evaluation is a process of evaluating the developed system to identify the system's strengths and limitations as well as future enhancements. It also enables the developer to problem encountered during the development of the system.

7.1 Problem Encountered and Their Solutions

During the development of CMS, various problems were encountered. The following are some of the major problems gained and the approaches taken to solve them from the beginning through the end of the system development process.

7.1.1 Inexperinced in using Programming Language

As Dreamweaver Ultradev is the default language for Active Server Pages, most of the coding is done using Ultradev. Since this software and language was not taught before as well as with no prior knowledge of Ultradev's script, to organize the structure and codes during the process was a difficult task. To overcome this problem, much time was really spent in learning and grasping the new language. I learnt from books, tutorials from the internet and surfing the related materials were also some of the approaches taken to solve the problems. Discussion with coursemates who are experienced in Ultradev Script was a great help.

7.1.2 Difficulties in choosing a Programming Language and Tools

There are many software tools available in the market for developing web based system and choosing a suitable tool was a critical process because lackof the adequate knowledge of these languages. The web based programming language is different from the normal stand alone language. As lot of time is consumed to grasp the concept and background of the different tools for choosing suitable language. In addition, advices and views obtained from my friends and supervisor helped a lot in understanding the various tools.

7.1.3 Lack of time

Due to lack of time, some specification proposed before failed to be developed during the time frame given. Since I have to catch up also with other subjects, I really have to squeeze in my time in order to finish up my final project. In the System Enhancement I will explain thoroughly what had I changed in my system proposed before.

7.1.4 No Exposure to Database Server

Ultradev supports Active Server Pages(ASP), one of the most popular technologies for creating dynamic Web applications. Dynamic Web Application need a server that can process requests generated dynamically by a browser. The browser can request either static or dynamic content from the Web server. Whereas the Web server can send static HTML pages that have been requested by the browser, it cannot send dynamic content unless an application server associated with a server technology, such as ASP is installed on it. This has increased the project learning curve as lots of effort is needed to master the database server for the application. Furthermore setting up connectivity between Microsoft Access and Ultradev is another issue.

7.1.5 Problems of Managing The System and Database

Frankly I don't really know how to manage the database using Ultradev. I really had to work hard on it and I really spent so much time on configuring myself the method and finally from the help of the literature reviews and did the step by step tutorials given from the software, I had know already the process flow and I'm really satisfied with what I gained now.

7.2 System Strengths

After finishing developing my system, I found out there are some strengths in my system eventhough I was not really confident that I may produced such a system like this. I'm there are lots of things that I can change to make my system good enough, but as I said before, with no experience and basics knowledge I'm happy that I cam still produce a system like CMS.

7.2.1 Friendly and ease of Graphical User Interface(GUI)

The major advantages that I figured from CMS is that it provides a friendly and easy to use interfaces. I designed everything using Dreamweaver and I did some research on how to present the system by creating a corporate look since CMS is for organization who interested on managing a conference. GUI components such as list down button, and command button are used to minimize the user actions while performing certain task. Hyperlinks are provided to users to enable them to navigate from page to page easily by pointing and checking. Moreover, a combo box is used to list all records in the database. This may ease the work of administrator to enter in the appropriate value.

7.2.2 System Transparency

This refers to the condition where the users do not need to worry about how the system is conducted and structured. The system will handle the queries of the user without their intervention. Database transparency is also applied in the system where users do not need to know the structure of the database or anything related to the system built.

7.2.3 Step by Step Performance

For the first timer user who wants to organize a conference, CMS will be a much easier for them since they don't have any experience on what are the requirements for conducting a conference. Some guidance on how to make your conference may be very useful for the organizer.

7.2.4 Tips Module

I also had include some good articles related to organizing and managing the conference. This maybe not to detail but maybe in the future I may try my very best to update this system and occasionally this system may produce a good feedback from the users.

7.3 Current Enhancements

I had make some changes from what I had proposed earlier in the proposal and I will list down one by one what were the things that I had changed to make my system more simpler and yet presentable. During the development of process, some sections in system design as described in chapter 4 have been changed. Tables design has been changed during the development process.

I made some changes too on the Pre-conference Module. I decided not to have online registration but the form is given for the committee to print out the form and distribute it to the participants. The committee members will have some good examples on how to organize the conference and I had prepared some step by step method on how to make things easier. Some tips had been include in the Tips Module. This module is just a add on from the 6 modules that I had proposed earlier. I don't have enough time to put all relevant articles but I hope that 3 pages were enough for the basics requirements on managing the conference.

I managed to keep track with all I proposed in the first part of my report and I think there were no big changes except for the user interface which I think that I had made some mistakes on designing the previous interface and I feel more comfortable with the current design. I received many comments on my user interface and they were all very supporting.

Of course some tables in the database too had faced some alteration during the implementation phase. There were some items that I had missed during the proposal and I had made some and major changes. A lot of changes for the tables in the database in all the modules to make sure that the database of the system will be much more well-organized later on.

7.4 Future Enhancements

If there are still some times for me to change my current system, I want to add some more interesting modules and really elaborate on some of the certain modules proposed. There are always new ideas encountered during the development of the system. However due to time constraint, not all of these ideas could be incorporated into the system. Some of my ideas that just pop up from my head were :

i- *Creating Video Aid* : I saw from the Internet that there is a software that can help to make this video aid and it is free. But I need to consider some aspects since I really don't know and lack of time on learning on this. But maybe in the future, this idea can really enhance the understanding of users and it will make the system more interesting.

ii- *Site Builders* : This is so much fun since I can give the users some online virtual tutorials on how to use the system that this can really help the beginners. This fast emerging technology and impressive progressive has been achieved. This technology can become a reality and hence, further alleviate the strength of this system.

iii- *Improve User Interactiveness* : System provides 1 way communication. In order to improve the level of interactiveness, the application should provide a 2 way communication with the existence of a database that should enable users to perform key search.

iv- *System Performance Limitation* : depends on user's transmission and connection line. A bad connection line will slow down the downloading time.Thus, the system will spend some time to complete a task. Besides response time will also be slow if there are too many concurrent connections to the web server.

7.5 Problem Encountered

In order to obtain a proper conclusion, there were a few problems to be encountered in the developing my system. Among the problems to be considered are shown below.

i) *Lack of knowledge in web-based application.*

During developing CMS, there were problems faced when choosing the appropriate languages. The reason is the lack of knowledge and experience in developing the system using web-based technologies such as Active Server Pages(ASP). Basically the problems encountered in web pages coding involved ASP and scripting code.

- ASP Coding

Actually most of the ASP coding problems were encountered in the early stages of project development. This is because of the ambiguity and lack of understanding of the language initially. In fact, as the project development went on, a better understanding of most of the ASP coding was obtained and problems encountered in the earlier stages of development.

ii) *Not enough material to be used on the system*

Due to lack of resources such as hardware, people and time, the system could not be fully tested on a wider scale. Sometimes it is difficult to find related information in the books or internet. Some information might be confidential or even not up-to-date. The statistic data or some reports need to be searched from certain websites.

iii) *Unfamiliarity of development tools used*

At the early stages of system implementation, problems were encountered in using development tools that were used to develop the system. Among the development tools are used were Dreamweaver Ultradev and Microsoft Access 2000. In a short time, I have to learn and master the tools. However with constant use and through examples and tutorials from help files and books, I was able to manipulate the tools to help me in developing the program that have need.

iv) *Matters concerning security*

Some segments inside CMS had to pay an important emphasis on the security aspect. It is because it private records exposure to unathorized person will caused serious problem

such as information on the budget plan or the information on the organizer that need a privacy.Thus, unfamiliarly with this caused much delay because of having to learn from scratch about it.

7.6 Solutions to the Problems

Although there were a few problems faced as mentioned previously, they were managed to be overcome with below listed solutions.

i) Books about Dreamweaver Ultradev,ASP and HTML were refered in order to obtain more knowledge about web aplications. After studying the basic about web programming, it will reduced confusion and difficulty to begin the coding phase.

ii) Guidance and disccussions, held with the lectures provided a clearer understanding on the system. The suggestions and information giving by lectures make the ideas to develop the system clearer and easier to start.

iii) In order to find out more information about the security aspect in developing a system, many related books were being read and more information being searched through the Internet. Besides that, guidance from friends also obtained by discussion among us.

7.6.1 Useful knowledge gained

In fact there was no doubt a lot of knowledge obtained throughout development entire of the CMS. Among knowledge which has gained was stated as below:

i) Learnt additional sofware tools

Instead of the programming tools studied in C, C++ and Java Programming, there are some other tools learnt up during developing the system such as Dreamweaver Ultradev, ASP Coding and HTML which used to create active web application. Besides that. The other technologies such as database programming and manipulation also improved and new knowledge on it was obtained. I also discovered that in order to develop an organized and systematic application, the following practise must be followed:

a. *Flow Chart* : The system structure is designed and draw before actual coding to avoid illogical design and to ensure that the programming task is easier and more systematic.
b. *Good User Interface* : Good and attractive interfaces as designed to encourage users to use the application.
c. *Programming Structures* : All relevant procedures of a program are listed down, followed by systematic coding. Structured program are easier to debug and maintain.
d. *Documentation* : All changes made to a program are documented for easier maintenance.
e. *Mastered the Process of Creating a Software* : During developing the system, the whole process of creating software was learnt and implemented. Beginning from the user's requirements to the system analysis, coding and finally the testing of the system.
f. *Skills in Gathering Information and Facts* : In order to gain the information for developing CMS, related information was collected not only from one source but from several places and people. Through the system development process, especially system requirements gathering and analysis, I have been able to polish

my communication skills on expressing ideas and problems related to the work to everyone involved.

g. *Experience in Problem Solving* : The solution of problems can be obtained by discussion and brainstorming. Also the useful experience was gained especially in the section of implementation of a system.

h. *Learn to Work Independently* : This experience was very useful because I had to work alone and complete the system just in time. Therefore all the work was done independently and all tensions were also bore along period of developing the system.

i. *Skills in writing Documentation* : I also obtained the knowledge of the proper format of writing documentation. Good documentation serves the aim of supporting testing and maintenance of the system. All changes are recorded for consistency while system implementation and testing are conducted based on the requirements and specifications to ensure that no requirements are left out. A user manual is also documented to help designers and novice user to use the system correctly. Thus, I have learnt to prepate documentations that adhered to known standards and guidelines.

j. *Skills in Time Management* : Time management was very important in this case so as the situation of developing and complete CMS on time and at the same time concentrare on other courses.

k. *Hand on Experience* : Practical exposure such as this project has given me the knowledge and prepared me for the actual working environment. As the computing world is constantly evolving and changing, I have taken this opportunity to improve my weaknesses and enhance my knowledge.

7.7 Chapter Summary

In a nutshell, I feel very happy because I have given the opportunity to develop the system such as what activities should be encountered inside each phase of developing the system. Although there were some problems being facing along developing the system, I can be trained how to face the problems and solve them successfully. It gives me the useful experience before I involve myself into the working environment.

Conclusion

Overall, the CMS has achieved and fulfilled the system objectives as determined in project scope and specification. The use of the web based approach brings along with many benefits, such as easy to handle and manage the process step of helding a conference, user will be able to make up their mind on what are the things require before starting the conference as well as provide a simple and easy to use interface.

As a conclusion, CMS has completed successfully with a strength and limitation as mentioned in the earlier chapter. Besides that the system has met its objectives of being a conference management system. Mainly CMS focuses on providing a guidance on organizing a big event like conference.

In fact, building a web-based system which is atand alone application is quite a challenging task. Quite a lot of researches, time and effort have been involved in making this project successfully and directly in fulfillings the task's requirements. In addition, a comprehensive knowledge of building and created by using client and server as the main communication feature to a web based application.

Besides that a lot of knowledge and experience gained throughout the development process of CMS. It is significantly that there has been an opportunity to show the capability in project management and communication skill. Furthermore, one of the most essential knowledge gained from this project is the techniques on problem solving and knowledge on software development. This leaving process proves how critical it is to make up to date information. It is important to do that in order to keep up with the progressive and ever changing field of Information Technology.

Appendix

Coding used in the making of user interface as well as the linking of Ultradev and Microsoft Access 2000. Here are some of the coding used and I have selected sample of coding from Accommodation Module which I think very useful for all .

Example coding for Accommodation Page

```
<%@LANGUAGE="VBSCRIPT"%>
<!--#include file="../Connections/CMS.asp" -->
<%
' *** Edit Operations: declare variables

MM_editAction = CStr(Request("URL"))
If (Request.QueryString <> "") Then
  MM_editAction = MM_editAction & "?" & Request.QueryString
End If

' boolean to abort record edit
MM_abortEdit = false

' query string to execute
MM_editQuery = ""
%>
<%
' *** Insert Record: set variables

If (CStr(Request("MM_insert")) <> "") Then

 MM_editConnection = MM_CMS_STRING
 MM_editTable = "Accommodation"
 MM_editRedirectUrl = "../3Transportation/transport.htm"
```

```
MM_fieldsStr =
"name|value|address|value|city|value|state|value|contact|value|phone|value|fax|value|email|
value|website|value|reservation|value|number|value|rate|value|number2|value|rate2|value|n
umber3|value|rate3|value|numparticipant|value|nuVIP|value|dayin|value|datein|value|timei
n|value|dayout|value|dateout|value|timeout|value|pool|value|healthcenter|value|shops|value
|restaurant|value|bar|value|golf|value|others|value"
MM_columnsStr =
"Name|',none,"|Address|',none,"|City|',none,"|State/ZIP|',none,"|Person|',none,"|Phone|none
,none,NULL|Fax|none,none,NULL|Email|',none,"|Website|',none,"|ReservNum|none,none
,NULL|SingleBed|none,none,NULL|SingleRate|none,none,NULL|DoubleBed|none,none,
NULL|DoubleRate|none,none,NULL|Suite|none,none,NULL|SuiteRate|none,none,NULL|
NumberParticipants|none,none,NULL|NumberVIPs|none,none,NULL|CheckinDay|',none
,"|CheckinDate|',none,"|CheckinTime|',none,"|CheckoutDay|',none,"|CheckoutDate|',none,'
'|CheckoutTime|',none,"|pool|none,1,0|healthcentre|none,1,0|shops|none,1,0|restaurant|non
e,1,0|bar|none,1,0|golfcourse|none,1,0|[Other Available Services]|',none,""

' create the MM_fields and MM_columns arrays
MM_fields = Split(MM_fieldsStr, "|")
MM_columns = Split(MM_columnsStr, "|")

' set the form values
For i = LBound(MM_fields) To UBound(MM_fields) Step 2
  MM_fields(i+1) = CStr(Request.Form(MM_fields(i)))
Next

' append the query string to the redirect URL
If (MM_editRedirectUrl <> "" And Request.QueryString <> "") Then
  If (InStr(1, MM_editRedirectUrl, "?", vbTextCompare) = 0 And Request.QueryString
<> "") Then
    MM_editRedirectUrl = MM_editRedirectUrl & "?" & Request.QueryString
  Else
```

```
    MM_editRedirectUrl = MM_editRedirectUrl & "&" & Request.QueryString
   End If
  End If

End If
%>
<%
' *** Insert Record: construct a sql insert statement and execute it

If (CStr(Request("MM_insert")) <> "") Then

  ' create the sql insert statement
  MM_tableValues = ""
  MM_dbValues = ""
  For i = LBound(MM_fields) To UBound(MM_fields) Step 2
   FormVal = MM_fields(i+1)
   MM_typeArray = Split(MM_columns(i+1),",")
   Delim = MM_typeArray(0)
   If (Delim = "none") Then Delim = ""
   AltVal = MM_typeArray(1)
   If (AltVal = "none") Then AltVal = ""
   EmptyVal = MM_typeArray(2)
   If (EmptyVal = "none") Then EmptyVal = ""
   If (FormVal = "") Then
    FormVal = EmptyVal
   Else
    If (AltVal <> "") Then
     FormVal = AltVal
    ElseIf (Delim = "'") Then  ' escape quotes
     FormVal = "'" & Replace(FormVal,"'","''") & "'"
    Else
```

```
      FormVal = Delim + FormVal + Delim
    End If
   End If
   If (i <> LBound(MM_fields)) Then
    MM_tableValues = MM_tableValues & ","
    MM_dbValues = MM_dbValues & ","
   End if
   MM_tableValues = MM_tableValues & MM_columns(i)
   MM_dbValues = MM_dbValues & FormVal
  Next
  MM_editQuery = "insert into " & MM_editTable & " (" & MM_tableValues & ")
values (" & MM_dbValues & ")"

  If (Not MM_abortEdit) Then
   ' execute the insert
   Set MM_editCmd = Server.CreateObject("ADODB.Command")
   MM_editCmd.ActiveConnection = MM_editConnection
   MM_editCmd.CommandText = MM_editQuery
   MM_editCmd.Execute
   MM_editCmd.ActiveConnection.Close

   If (MM_editRedirectUrl <> "") Then
    Response.Redirect(MM_editRedirectUrl)
   End If
  End If

End If
%>
<%
set Recordset1 = Server.CreateObject("ADODB.Recordset")
Recordset1.ActiveConnection = "dsn=AccessCMSDSN;"
```

```
Recordset1.Source = "SELECT * FROM Accommodation"
Recordset1.CursorType = 0
Recordset1.CursorLocation = 2
Recordset1.LockType = 3
Recordset1.Open
Recordset1_numRows = 0
%>
<html>
<head>
<!-- #BeginEditable "doctitle" -->
<title>customization</title>
<!-- #EndEditable -->
<LINK REL=STYLESHEET TYPE="text/css"
HREF="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/style.css">
<script language="JavaScript">
<!--
function MM_swapImgRestore() { //v3.0
 var i,x,a=document.MM_sr; for(i=0;a&&i<a.length&&(x=a[i])&&x.oSrc;i++)
x.src=x.oSrc;
}

function MM_preloadImages() { //v3.0
 var d=document; if(d.images){ if(!d.MM_p) d.MM_p=new Array();
   var i,j=d.MM_p.length,a=MM_preloadImages.arguments; for(i=0; i<a.length; i++)
   if (a[i].indexOf("#")!=0){ d.MM_p[j]=new Image; d.MM_p[j++].src=a[i];}}
}

function MM_swapImage() { //v3.0
 var i,j=0,x,a=MM_swapImage.arguments; document.MM_sr=new Array;
for(i=0;i<(a.length-2);i+=3)
```

```
  if ((x=MM_findObj(a[i]))!=null){document.MM_sr[j++]=x; if(!x.oSrc) x.oSrc=x.src;
x.src=a[i+2];}
}

function MM_findObj(n, d) { //v4.0
  var p,i,x;  if(!d) d=document; if((p=n.indexOf("?"))>0&&parent.frames.length) {
    d=parent.frames[n.substring(p+1)].document; n=n.substring(0,p);}
  if(!(x=d[n])&&d.all) x=d.all[n]; for (i=0;!x&&i<d.forms.length;i++) x=d.forms[i][n];
  for(i=0;!x&&d.layers&&i<d.layers.length;i++)
x=MM_findObj(n,d.layers[i].document);
  if(!x && document.getElementById) x=document.getElementById(n); return x;
}

function MM_jumpMenu(targ,selObj,restore){ //v3.0
  eval(targ+".location='"+selObj.options[selObj.selectedIndex].value+"'");
  if (restore) selObj.selectedIndex=0;
}

function MM_jumpMenuGo(selName,targ,restore){ //v3.0
  var selObj = MM_findObj(selName); if (selObj) MM_jumpMenu(targ,selObj,restore);
}
//-->
</script>
</head>
<body topmargin="0" leftmargin="0" marginheight="0" marginwidth="0"
background="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/gre
ylines.gif" bgcolor="#FFFFFF" text="#000000" link="#999999" vlink="#990000"
alink="#666666"
onLoad="MM_preloadImages('file:///C|/Dreamweaver%20Templates/DW%20Virtual%2
0Blue/blank_images/pre2copy.jpg')">
<table border="0" width="100%" cellpadding="0" cellspacing="0">
```

```
 <tr>
  <td colspan="8" bgcolor="#333333"><font face="Arial, Arial, Helvetica"><img
border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/clearpixel.g
if" width="1" height="1"></font></td>
 </tr>
 <tr>
  <td width="1" rowspan="9" bgcolor="#333333"><font face="Arial, Arial,
Helvetica"><img border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/clearpixel.g
if" width="1" height="1"></font></td>
  <td colspan="6" bgcolor="#6699CC">
   <table border="0" cellpadding="0" cellspacing="0" width="100%">
    <tr>
     <td width="50%" align="center"><font face="Arial, Arial, Helvetica"><img
src="tiltlecopy.jpg" width="504" height="41"><br>
      </font></td>
     <td width="50%" valign="bottom" align="right"><font face="Arial, Arial,
Helvetica"><a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/PreConference/home.dwt">home</a>
      | <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/Tips/tips.dwt">
      tips</a>  </font></td>
    </tr>
   </table>
  </td>
  <td width="4" rowspan="9" bgcolor="#333333"><font face="Arial, Arial,
Helvetica"><img border="0"
```

```
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/clearpixel.g
if" width="1" height="1"></font></td>
 </tr>
 <tr>
  <td colspan="6"
background="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/bla
ckbar.gif" bgcolor="#333333"><font face="Arial, Arial, Helvetica"><img border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/clearpixel.g
if" width="1" height="13"></font></td>
 </tr>
 <tr>
  <td colspan="6" bgcolor="#6699CC" height="6"><font face="Arial, Arial,
Helvetica"><img border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/clearpixel.g
if" width="1" height="4"></font></td>
 </tr>
 <tr>
  <td width="132" valign="top" rowspan="2"><font face="Arial, Arial,
Helvetica"><img border="0" src="top.gif" width="129" height="19"><br>
   <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/PreConference/home.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image35','','file:///C|/Dreamweaver%20Templates/DW
%20Virtual%20Blue/blank_images/homeov.gif',1)"><img name="Image35" border="0"
src="home.gif" width="129" height="21"></a><br>
   <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/PreConference/pre-conf.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image351','','file:///C|/Dreamweaver%20Templates/D
```

```
W%20Virtual%20Blue/blank_images/pre2copy.jpg',1)"><img name="Image351"
border="0" src="precopy.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/Accommodation/accommodation2.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image361','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/acco%202copy.jpg',1)"><img name="Image361"
border="0" src="acco%20copy.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/Transportation/transport.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image371','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/trans2.jpg',1)"><img name="Image371"
border="0" src="trans.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/OnSite/onsite.dwt" onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image381','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/onsite2copy.jpg',1)"><img name="Image381"
border="0" src="onsitecopy.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/EventManagement/event%20management.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image391','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/event2copy.jpg',1)"><img name="Image391"
border="0" src="eventcopy.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
```

```
Asp_tutorial/Scaal_extranet/PostProgram/post.dwt"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image401','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/post2copy.jpg',1)"><img name="Image401"
border="0" src="postcopy.jpg" width="129" height="21"></a><br>
    <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
Asp_tutorial/Scaal_extranet/Tips/tips.dwt" onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Image411','','file:///C|/Dreamweaver%20Templates/D
W%20Virtual%20Blue/blank_images/tips2copy.jpg',1)"><img name="Image411"
border="0" src="tipscopy.jpg" width="129" height="21"></a><br>
    <img border="0" src="menubottom.gif" width="129" height="32">
    <p align="center"> <b></b></p>
    <p> </p>
    </font></td>
  <td width="4" bgcolor="#6699CC" rowspan="2"> </td>
  <td width="505" valign="top" bgcolor="#FFFFFF"><font face="Arial, Arial,
Helvetica"><img border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/tl.gif"
width="15" height="13"></font></td>
  <td width="308" align="center" bgcolor="#FFFFFF"><font face="Arial, Arial,
Helvetica"> 
    </font></td>
  <td width="49" align="right" valign="top" rowspan="2" bgcolor="#FFFFFF"><font
face="Arial, Arial, Helvetica"><img border="0"
src="file:///C|/Dreamweaver%20Templates/DW%20Virtual%20Blue/images/tr.gif"
width="15" height="13"></font></td>
  <td width="16" rowspan="6" bgcolor="#6699CC"><font face="Arial, Arial,
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color="#006699">
            </font><font size="4"><b><font color="#006699"><img src="49320.JPG"
width="193" height="265" align="right"></font></b></font></b></font></p>
            <form name="form1" method="POST" action="<%=MM_editAction%>">
              <p>Select hotel websites and make reservation.
                <select name="menu1" onChange="MM_jumpMenu('parent',this,0)">
                  <option value="http://www.all-hotels.com" selected>AllHotels</option>
                  <option value="http://www.choicehotels.com">ChoiceHotels</option>
                  <option value="http://www.concorde-hotels.com">Concorde</option>
                  <option
value="http://www.destinationhotels.com">DestinationHotels</option>
                  <option value="http://www.dynasty.com.my">Dynasty</option>
                  <option value="http://www.hotels.com">Hotels</option>
                  <option value="http://www.hyatt.com">Hyatt</option>
                  <option value="http://www.hilton.com">Hilton</option>
                  <option value="http://www.emalaysiahotel.com">MalaysiaHotels</option>
                  <option
value="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutoria
l/Asp_tutorial/Scaal_extranet/Accommodation/www.marriott.com">Marriott</option>
                  <option value="http://www.nikkohotels.com">NikkoHotel</option>
                  <option value="http://www.radisson.com">Radisson</option>
                  <option value="http://www.regenthotels.com">Regent</option>
                  <option value="http://www.westin.com">Westin</option>
```

```
        </select>
        <input type="button" name="Button1" value="Go"
onClick="MM_jumpMenuGo('menu1','parent',0)">
      </p>
      <p><b><u>HOTEL INFORMATION </u></b></p>
      <p><font color="#000000">Name </font><font size="4"><b><font
color="#006699">
        <input type="text" name="name" maxlength="20" size="30">
        </font></b></font> </p>
      <p>Address
        <textarea name="address" rows="3" cols="40" wrap="VIRTUAL"></textarea>
      </p>
      <p>City
        <input type="text" name="city" maxlength="20" size="30">
      </p>
      <p>State/ZIP
        <input type="text" name="state" maxlength="30" size="30">
      </p>
      <p>Contact Person
        <input type="text" name="contact" maxlength="30" size="30">
      </p>
      <p>Phone
        <input type="text" name="phone" maxlength="20" size="20">
      </p>
      <p>Fax
        <input type="text" name="fax" size="20" maxlength="20">
      </p>
      <p>Email
        <input type="text" name="email" size="20" maxlength="20">
      </p>
      <p>Web site
```

```
 <input name="website" maxlength="40" size="40">
</p>
<p>Reservation Number:
 <input type="text" name="reservation" size="20" maxlength="20">
</p>
<p><b><u>ROOMS AVAILABLE</u></b></p>
<p>Type of rooms </p>
<p><b>Single Bed</b>:</p>
<p>Number
 <input type="text" name="number" size="10" maxlength="10">
 Rate $
 <input type="text" name="rate" size="10" maxlength="10">
</p>
<p><b>Double Bedded</b> :</p>
<p>Number
 <input type="text" name="number2" size="10" maxlength="10">
 Rate $
 <input type="text" name="rate2" size="10" maxlength="10">
</p>
<p><b>Suite</b> :</p>
<p>Number
 <input type="text" name="number3" size="10" maxlength="10">
 Rate $
 <input type="text" name="rate3" size="10" maxlength="10">
</p>
<p><b><u>I</u></b><u><b>MPORTANT INFORMATION</b></u></p>
<p>Estimated number of participants :
 <input type="text" name="numparticipant" size="10" maxlength="10">
</p>
<p>Estimated number of VIPs :
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</p>
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 date :
 <input type="text" name="datein" size="20" maxlength="20">
 estimated time :
 <input type="text" name="timein" size="20" maxlength="20">
</p>
<p>Check out day :
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 date:
 <input type="text" name="dateout" size="20" maxlength="20">
 estimated time :
 <input type="text" name="timeout" size="20" maxlength="20">
</p>
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 <p>
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  Pool </p>
 <p>
  <input type="checkbox" name="healthcenter" value="checkbox">
  Health Center</p>
 <p>
  <input type="checkbox" name="shops" value="checkbox">
  Shops </p>
</div>
<p>
 <input type="checkbox" name="restaurant" value="checkbox">
 Restaurant/Coffee House</p>
```

```
<p>
 <input type="checkbox" name="bar" value="checkbox">
 Bar </p>
<p>
 <input type="checkbox" name="golf" value="checkbox">
 Golf Course</p>
<p>Others, please specify :
 <textarea name="others" wrap="VIRTUAL" cols="30" rows="5"></textarea>
</p>
<p>
 <input type="submit" name="Submit" value="Save">
 <input type="reset" name="Submit2" value="Reset">
</p>
<p> </p>
<p><b></b></p>
<p> </p>
<p>  </p>
<p> </p>
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</form>
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       <td>
        <p align="center"><img src="hr.gif" width="303" height="2"> <br>
         &copy; 2002.All rights reserved.Website by <a
href="mailto:nfk@pc.jaring.my"><font color="#0000FF">Nik
          Noraini Nik Farid</font></a><br>
        </p>
        <font face="Arial, Arial, Helvetica"></font></td>
      </tr>
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conference</a> ]</nobr>
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Asp_tutorial/Scaal_extranet/Accommodation/accommodation2.dwt">accommodation</a
>
]</nobr> <nobr>[ <a
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obr>
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logistics</a> ] </nobr></font><font face="Arial, Arial, Helvetica"><nobr>[
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```

```
      program</a> ] [ <a
href="file:///C%7C/Program%20Files/Macromedia/Dreamweaver%20UltraDev/Tutorial/
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      ]</nobr></font></p>
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  </tr>
</table>
</body>
</html>
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Conference Management System User Manual

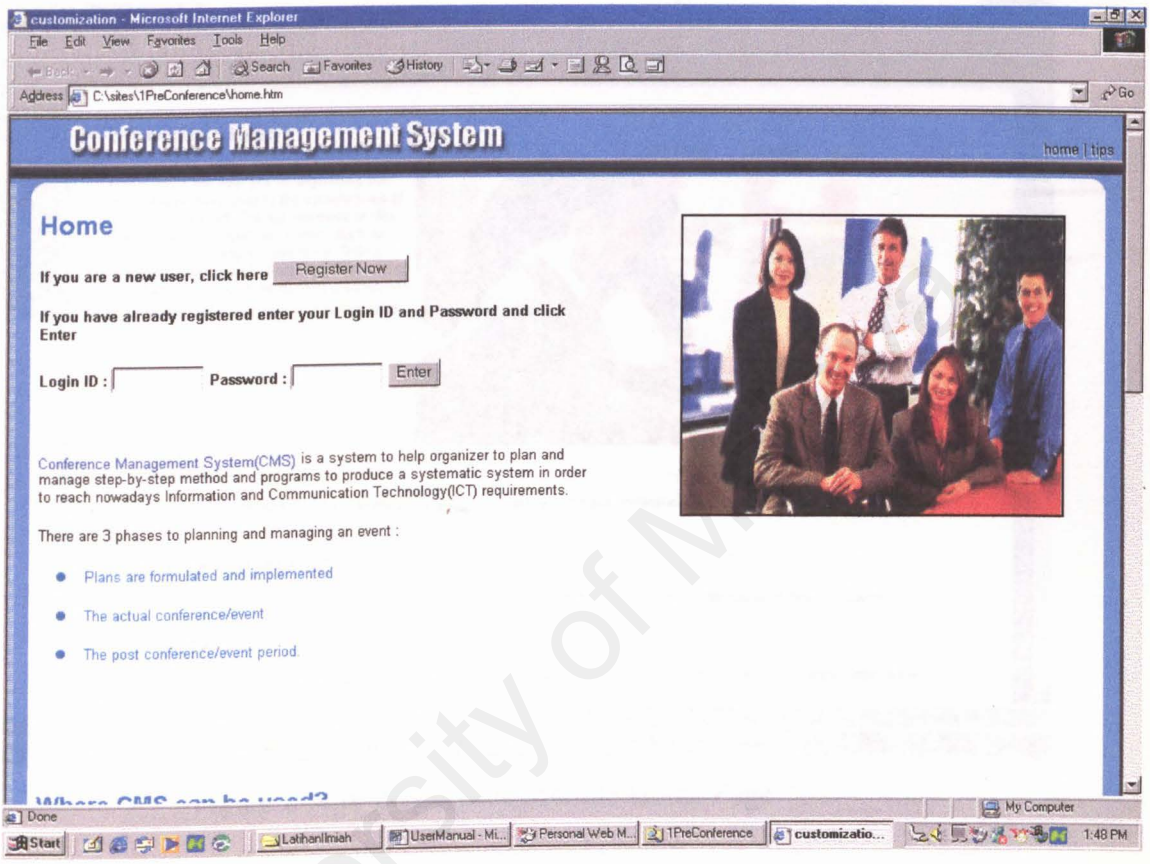

Figure 1 : CMS Home Page

This is the first page of CMS. If you are a new user, please click at the Register Now button but if you already the login ID and password please proceed by click at the Enter button. This page include some overview on the CMS itself for the user to read.

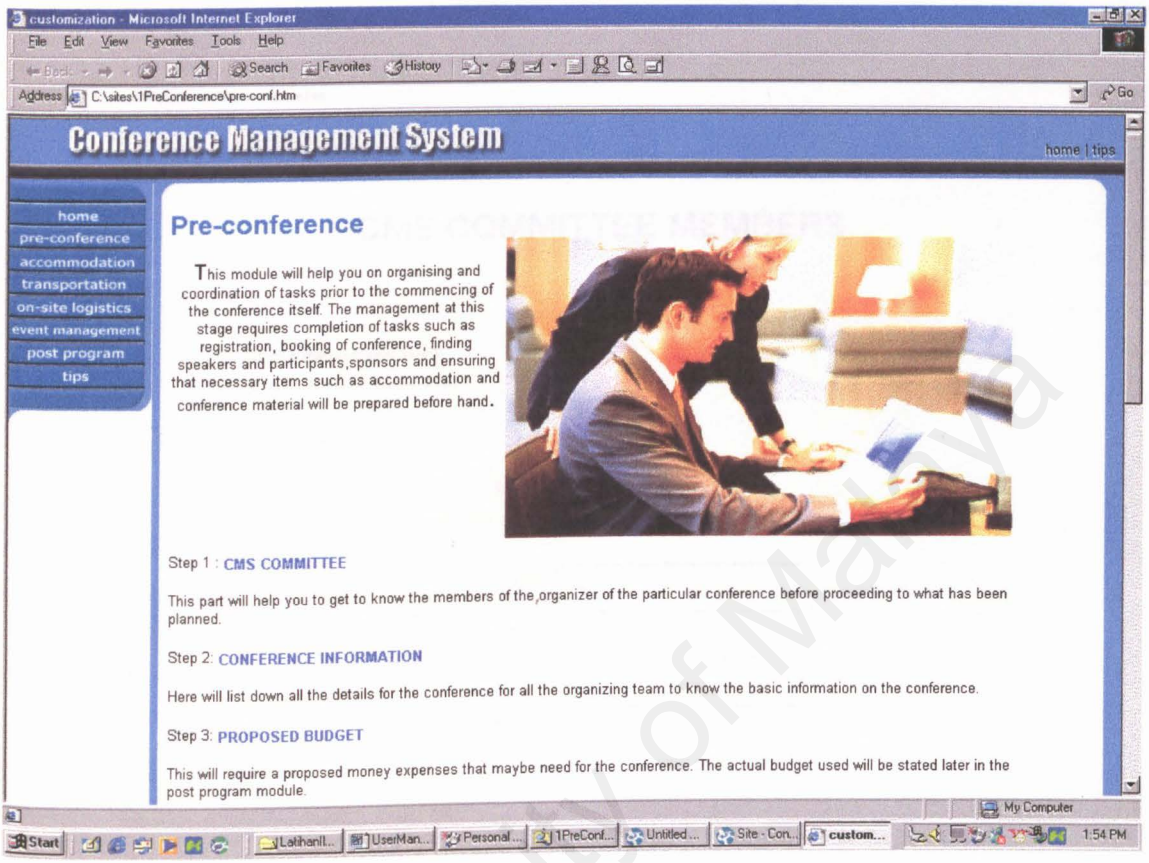

Figure 2 : Pre-conference Module Home Page

This is the first page of the Pre-conference Module. You may want to follow the step to key in the required information or you may click at the left side of the menu. After you enter all the information needed just press the Save button or Reset if you want to cancel all the information that you have entered previously.

For example :

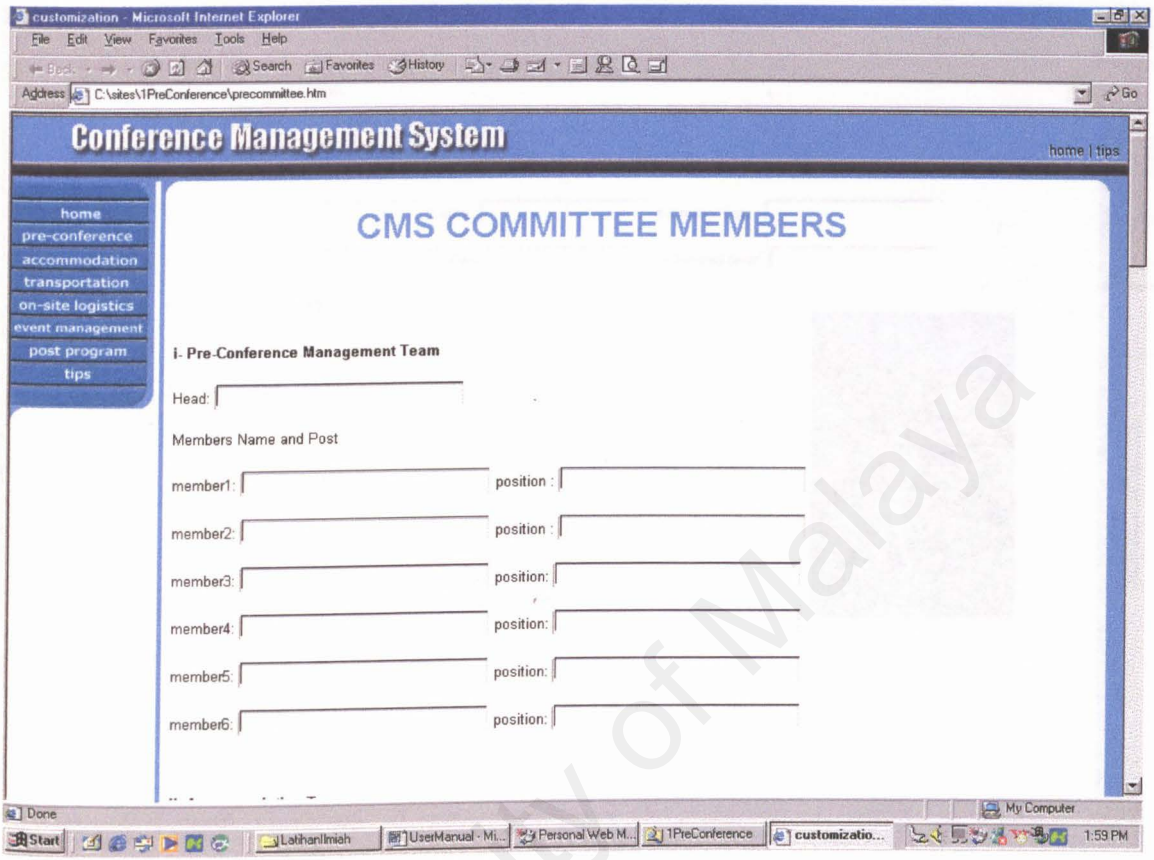

Figure 3 : Committee Members List

This page would allow you to key in all the names and positions of each Team that will be in-charge in the process of organizing your conference. After you have enter all the required data, please click at the save button so that all the information entered are saved in the database and you may retrieve later when you need it.

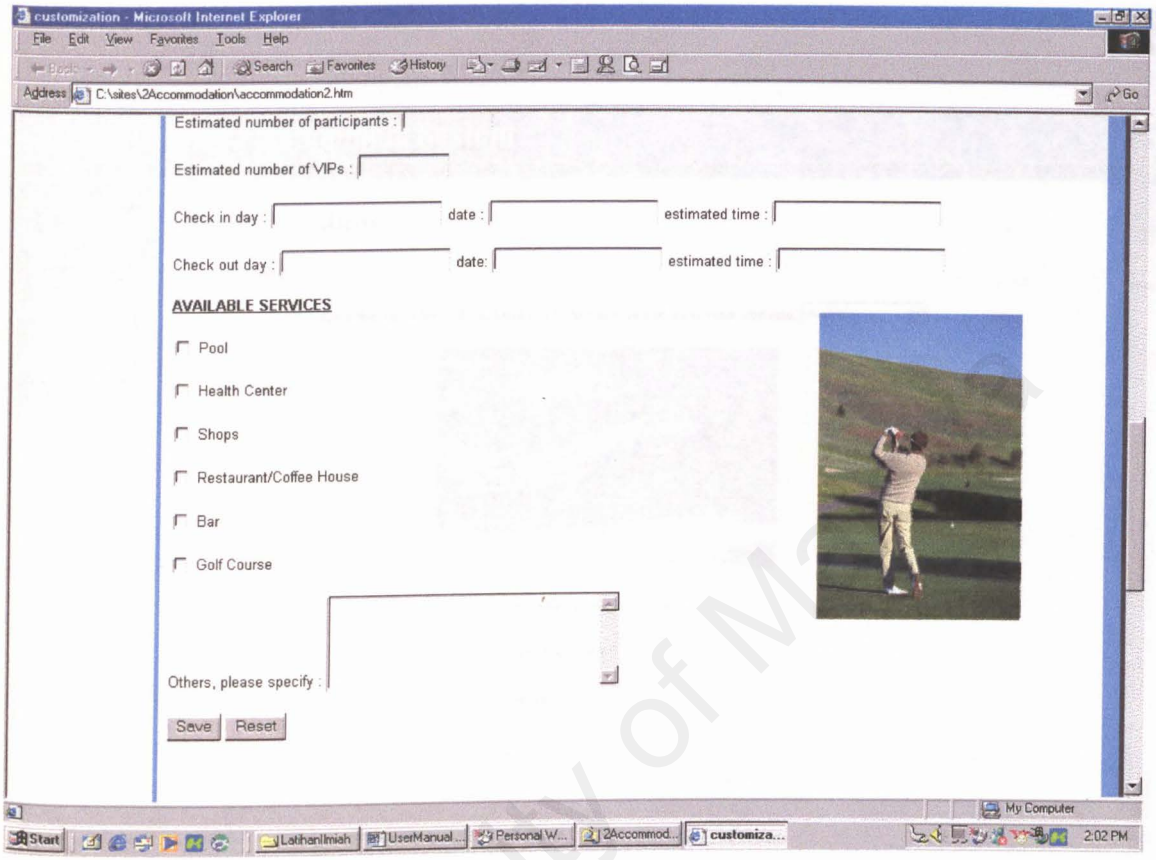

Figure 4 : Accommodation Module

This is the sample on how to organize all the information on the Accommodation. After key in all the required information don't forget to click at the Save button. There is also a drop down lst menu on where you can find your desired place for accommodation. If you still have not get the place for your conference plase have a look at the options and make a reservation by viewing at the particular website.

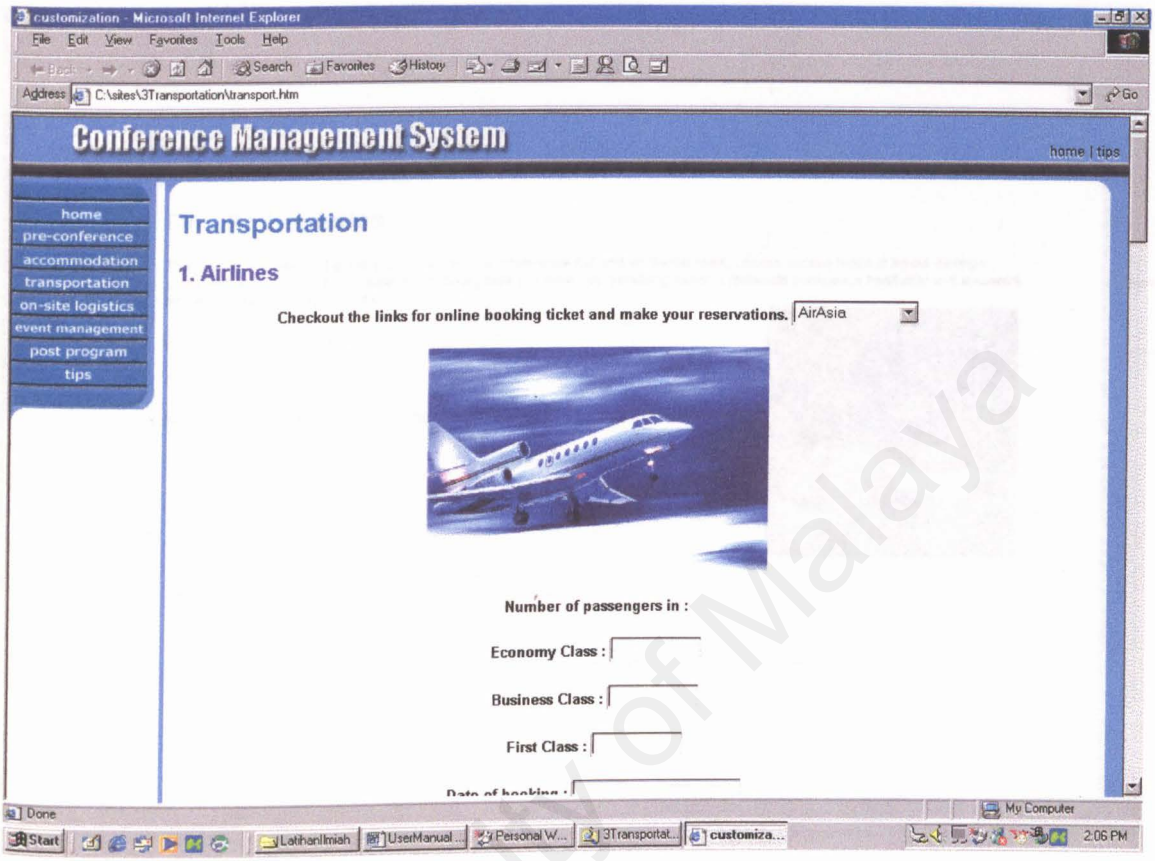

Figure 5 : Transportation Module

It same goes to the transportation as well, that the person who's in-charge on the managing this particular module, have to fill in the required boxes in order to up-date your information or making booking and reservation for airplanes, car rental, taxi or coach. In order to get the contact number or make reservation, make a selection at the required drop down list menu on which is the desired company that suit's your requirements.

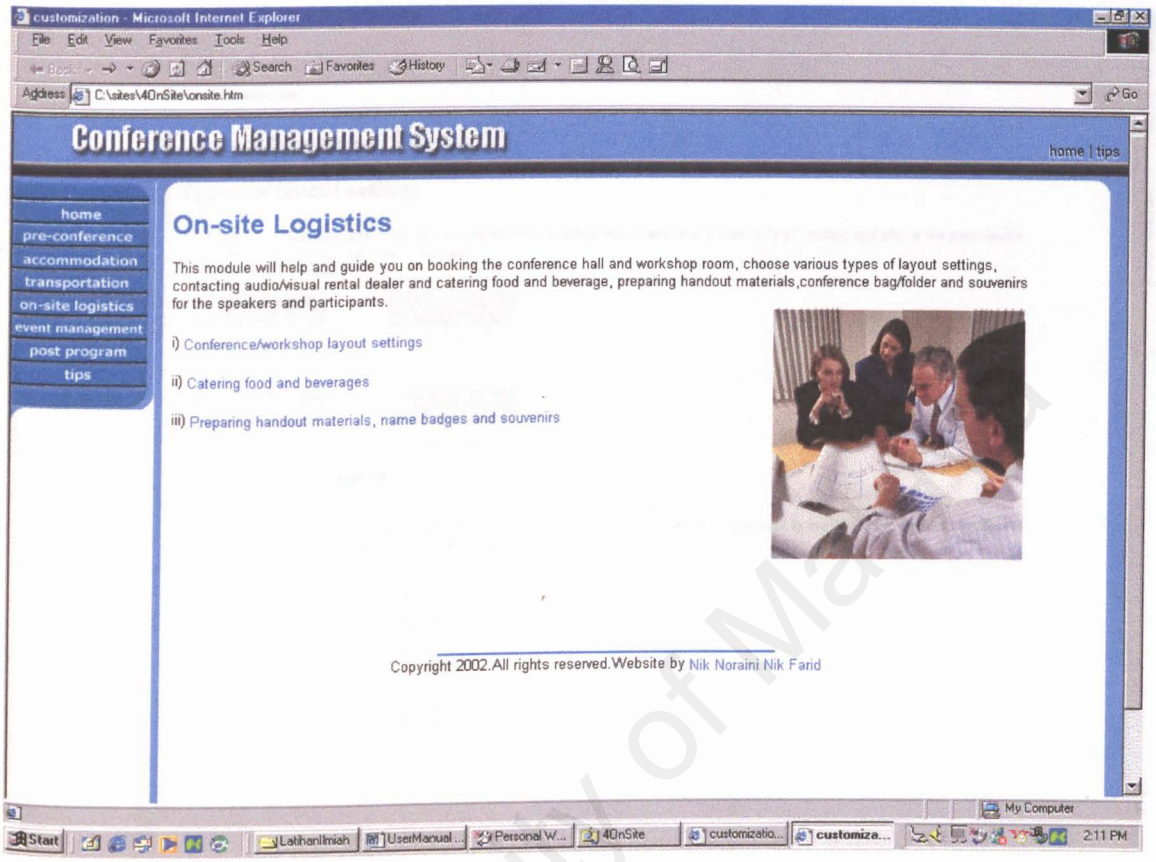

Figure 6 : On-site Logistics Main Page

This main page of on-site logistics will give you 3 required choices on key in the Conference/workshop layout settings, catering food and beverages and preparing the handout materials, name tags and souvenirs. Just click at the list and the required homepage will appear.

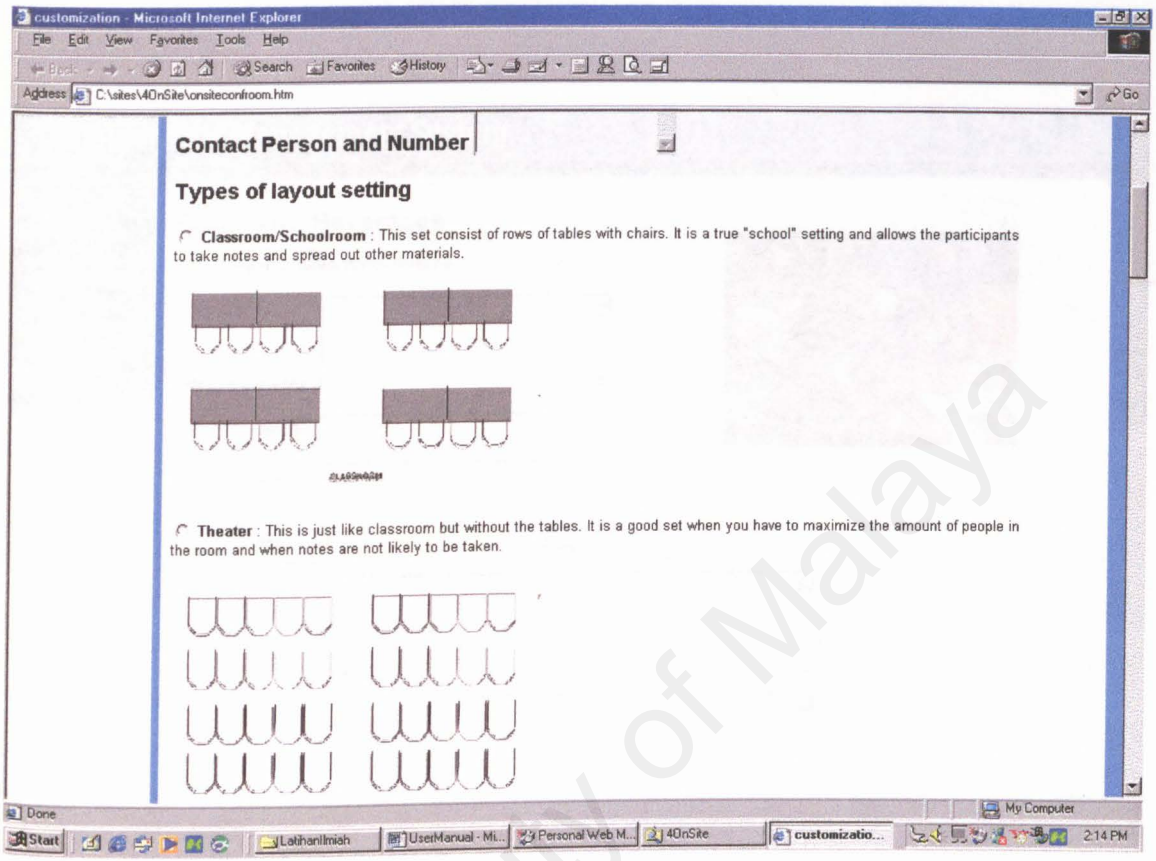

Figure 7 : Conference Room/Workshop Layout Settings

All the required information must be filled up and the team in-charge on Layout Settings may make the decisions on which are the best layout settings for their conference. After you make a contact with the company who's in-charge in preparing the settings, fill up the contact number and person to make it easier to contact them when required.

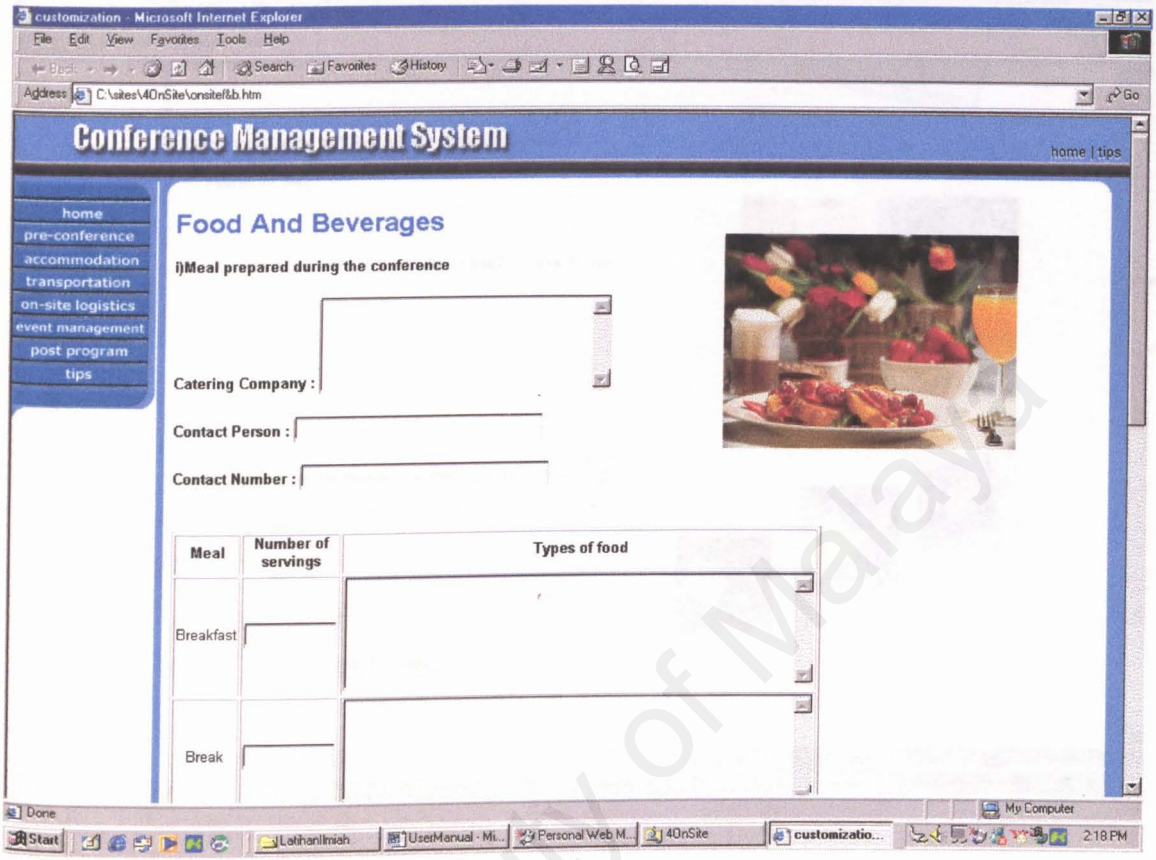

Figure 8 : Food and Beverages Module

This will help you to personalize and organize on who's your catering company for the event. You may include all the types of food that you need or require during the conference. This will help you on preparing the types of food in advance for the guests and participants of the conference.

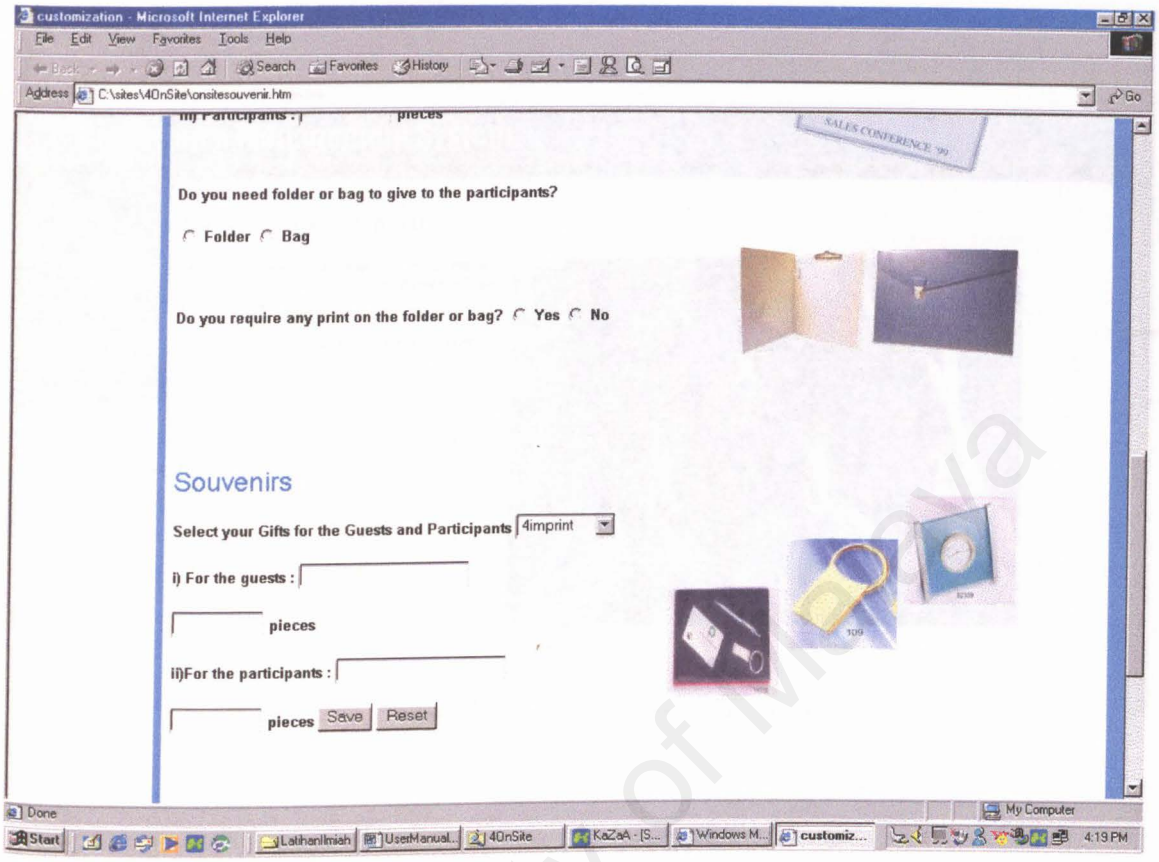

Figure 9 : Printing Material, Folder/Bag & Souvenirs Module

This module is still under On-site Logistics where all the printing materials needed, folder/bag and souvenirs for the guests and participants preparation. All information on these categories will be include here and the person in-charge will up-date this module and save all the data retrieved.

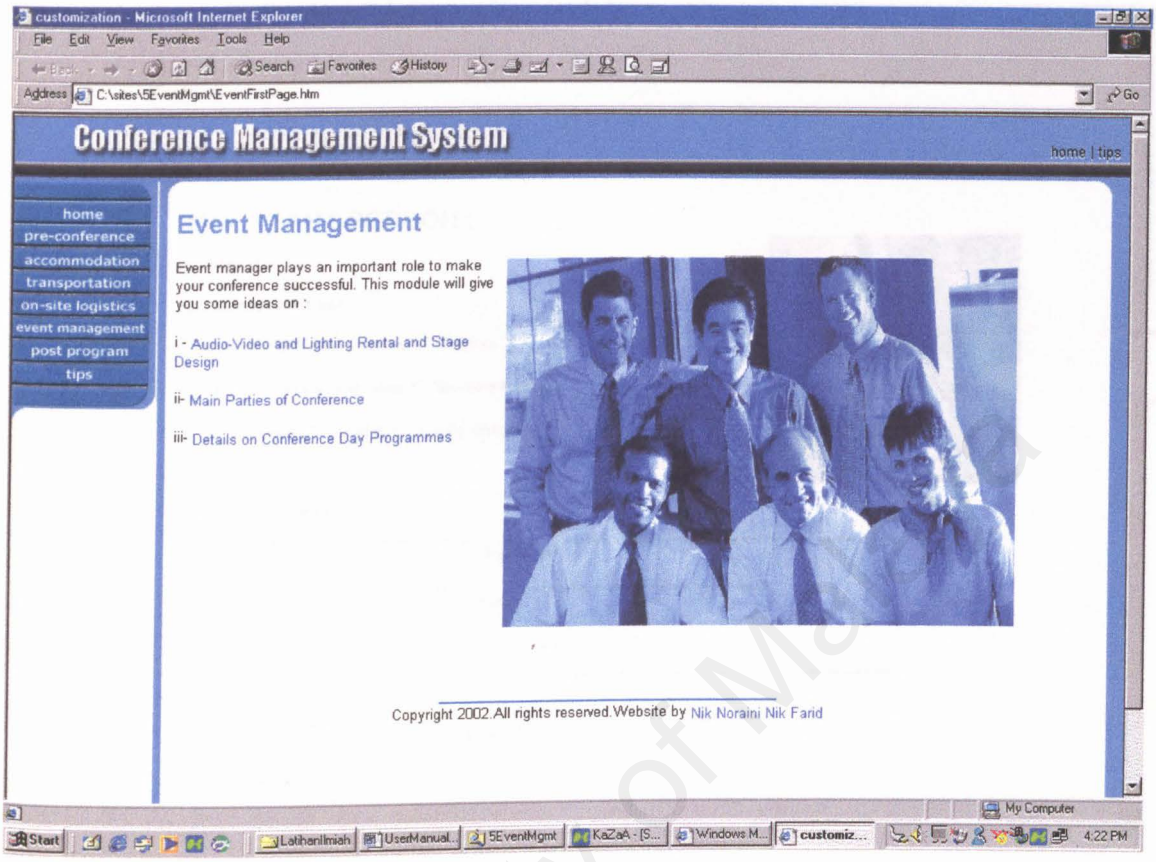

Figure 10 : Event Management Front Page

This page will give you an introduction on what are the things needed to prepare during the event management. Things are such a the audio/video ,lighting and stage design company contact, lists of important persons who will be involve in the conference and also the agenda for the conference. The event manager must always be alert on putting and key in the related information since this information can be change periodically.

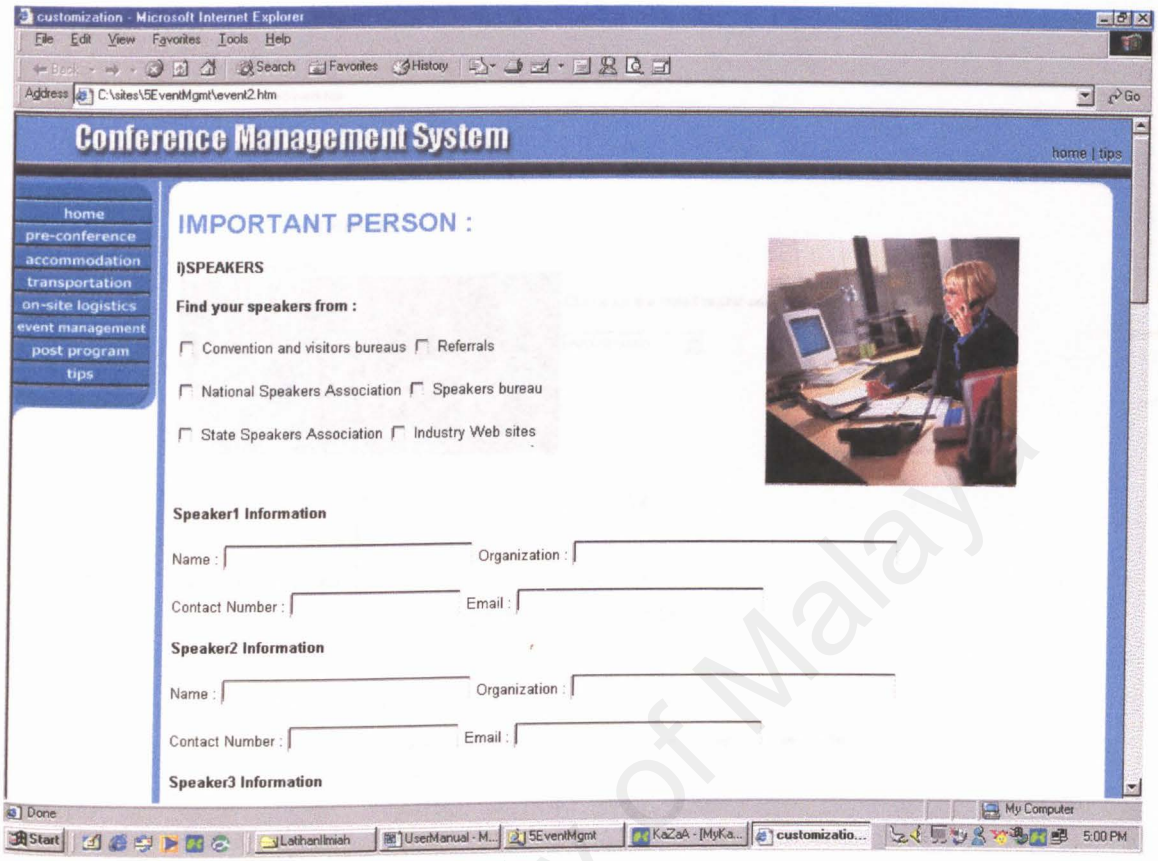

Figure 12 Important Person Contacts

This page will need the user to key in all the names and particular information on the speakers, rappoteurs, chairmen and emcees. Simply key in the information and save it into your database. Just follow the particular needed and everything is under controlled.

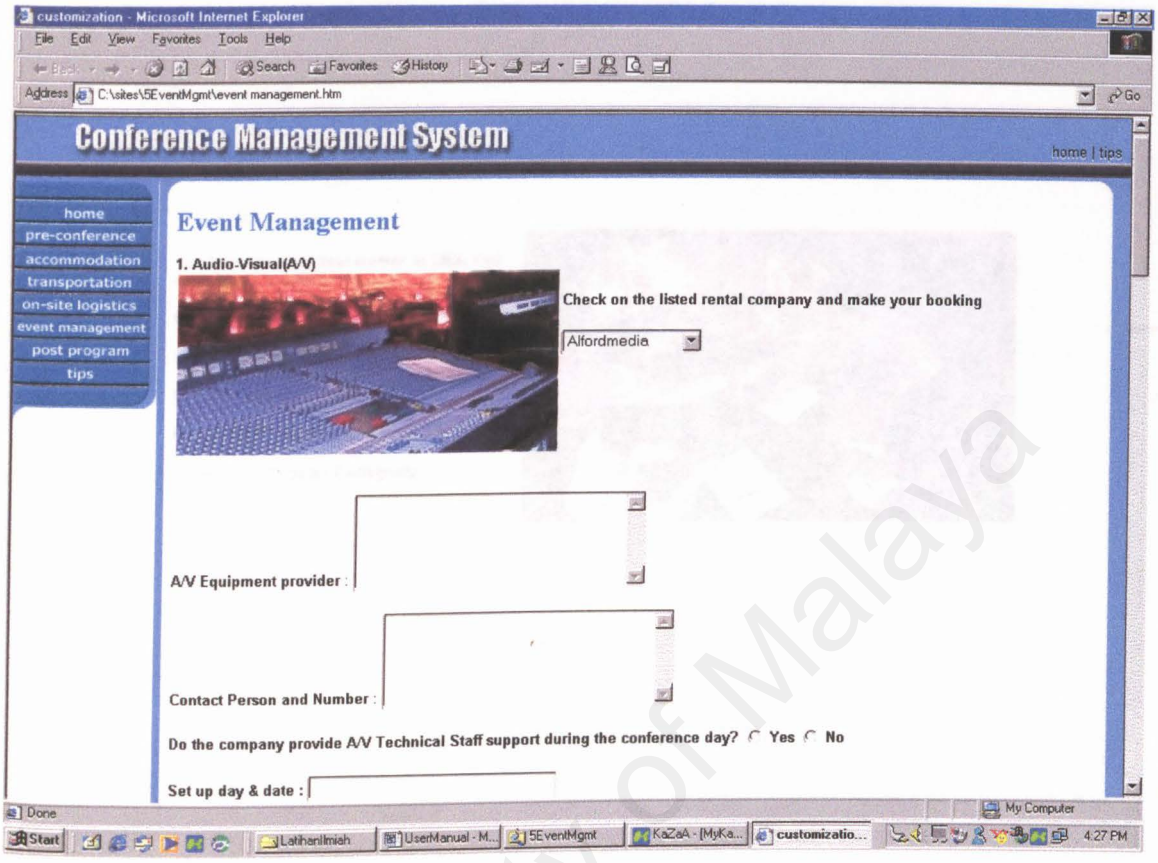

Figure 11 Audio/Visual, Lighting and Stage Design Module

This page will require the user to enter the information needed such as the provider of equipments, date and time for set up, name of the person in-charge and also all the items needed during the conference. The organizer may requests any equipment needed during the conference and inform the provider earlier before the day of the event. User may just follow all the step by step information needed and just save the information after done with the work.

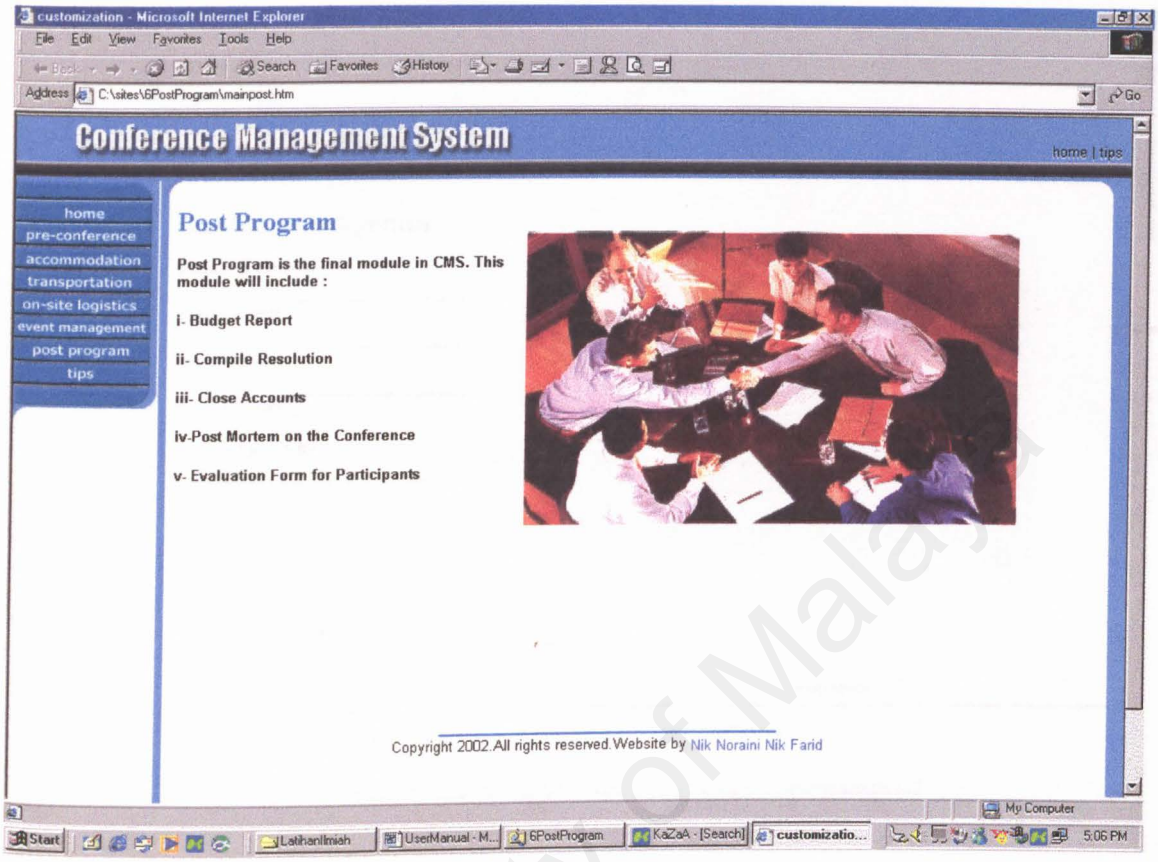

Figure 14 : Post Program Module

Post Program will be the last part of the organizing the conference. During working with this module, user can click at any of the numbered list such as the Budget Report, Compile Resolution, Close Accounts, Post Mortem on the conference and Evaluation Form for the participants which you can print it out and distribute to the participants of the conference. Just click at one of those title and you may retrieve the selected page and enter all the information needed for each part.

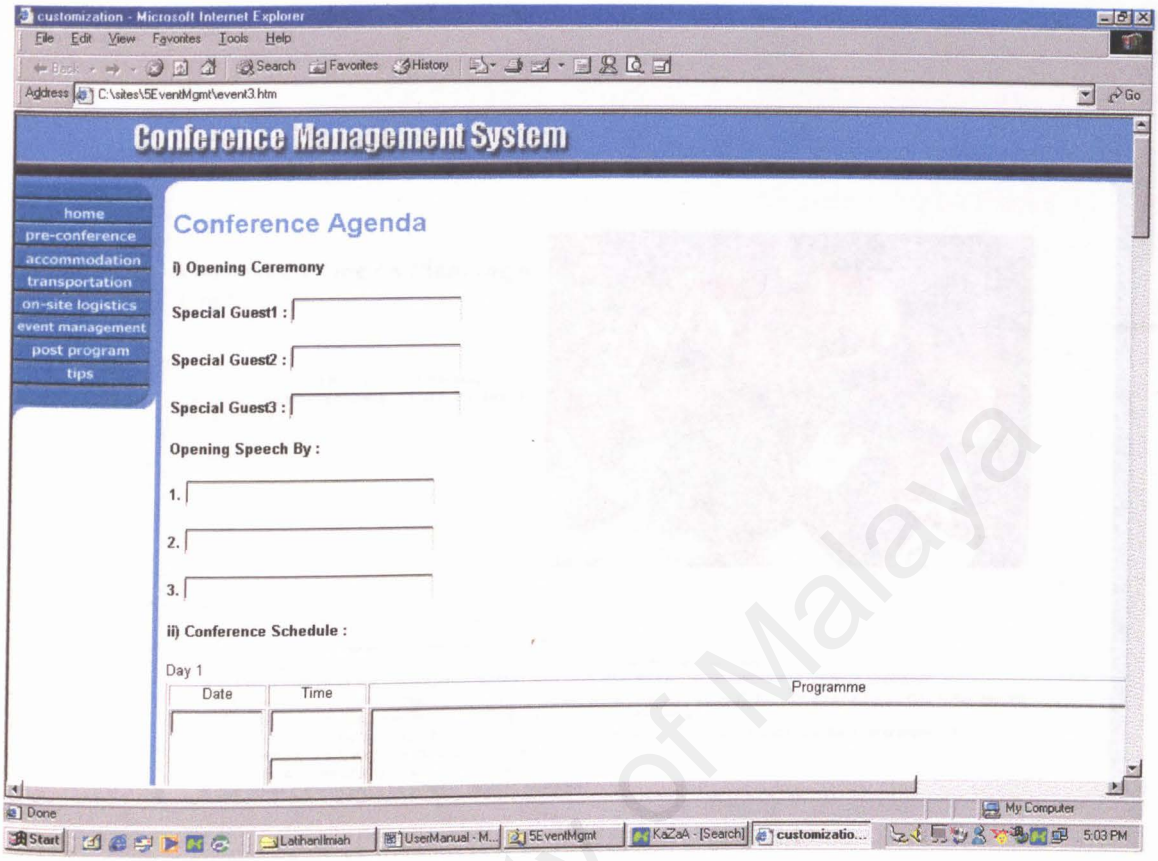

Figure 13 : Conference Programme

This page allows you to key in all the important information during the opening ceremony, schedule of the conference for particular day and for the closing ceremony. The person in charge maye have to reconfirm on the agenda before entering the information on the programme.

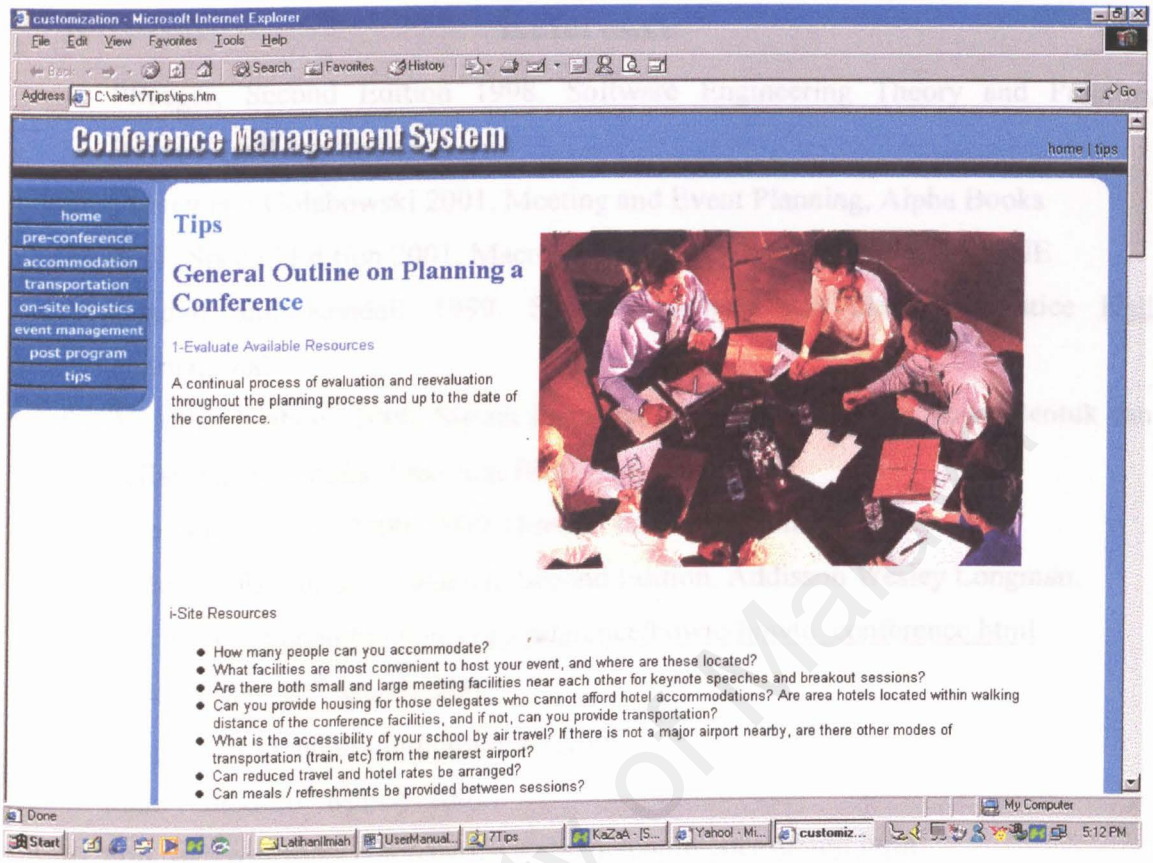

Figure 15 : Tips Page

This Tips page will give you some overview on how to make your conference successfully arranged and well-organized. These few articles may help you on giving you ideas and tips for managing the conference. You may get a better view and understand the system once you are using the Conference Management System.

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3- International Conference Management

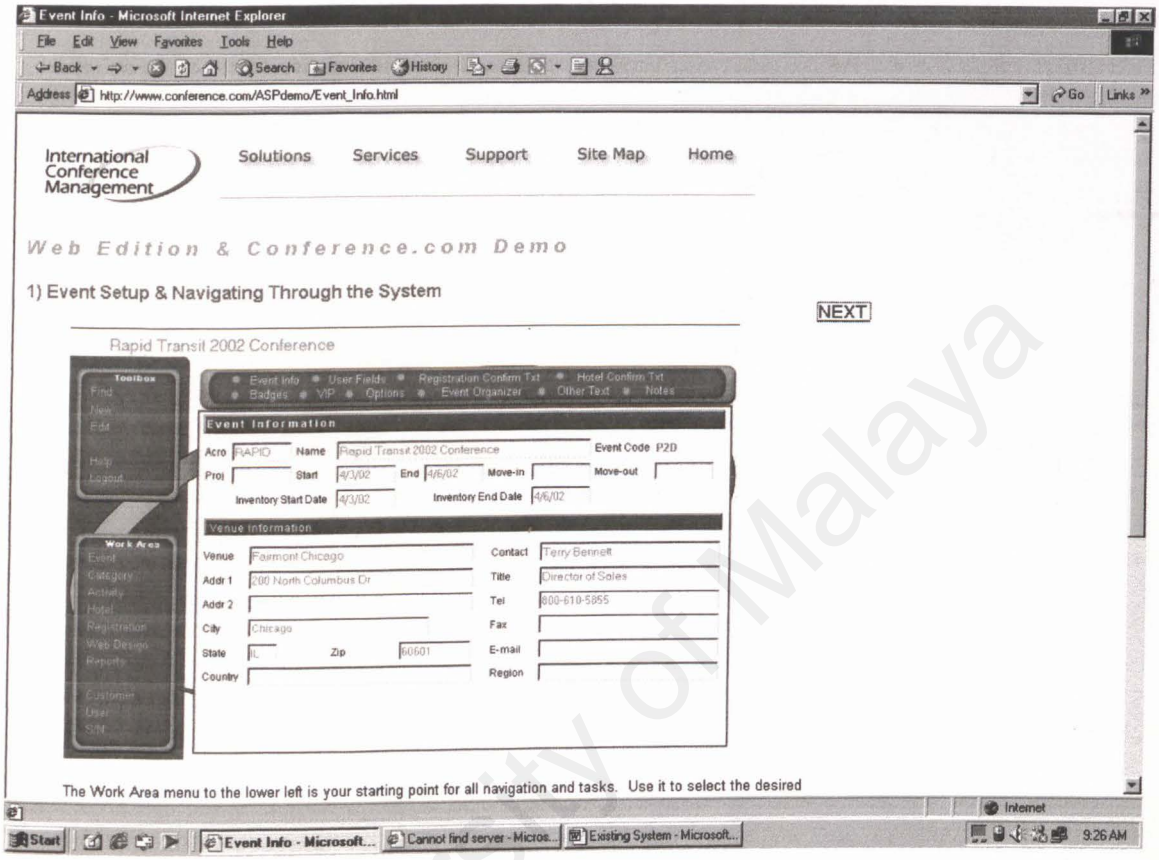

Figure 2.6 International Conference Management

This site only provides the system for the back end user and not for public use. But from my point of view, this system is user friendly and gives a better understanding on a step-by-step system to key in all the information. This system provides Event Information, Venue Information, Registration Confirm Text, Hotel Confirm Text, Event Organizer and others. The Toolbox menu contains file maintenance options that enable to Find records, add New records, Edit, Save, Delete, access online Help or Logout. The Event Work Area is designed to :

- define your event
- turn on user definable fields to track unusual information